

1172 h. 4
4

OBSERVATIONS
ON THE
INTRODUCTION
TO THE
PLAN
OF THE

Dispensary for General Inoculation.

WITH
REMARKS on a Pamphlet, entitled, "An
" Examination of a Charge brought against
" Inoculation by DE HAEN, RAST, DIMSDALE,
" and other Writers, By JOHN WATKINSON,
" M. D."

BY THE
HON^{BLE} BARON T. DIMSDALE,
First Physician and Actual Counsellor of State to her
Imperial Majesty the Empress of all the Russias,
and F. R. S.

L O N D O N:

Printed by WILLIAM RICHARDSON;
For W. OWEN, in Fleet-street, and T. CARNAN and F. NEW-
BERRY jun. N^o 65, in St. Paul's Church-yard.

M.DCC.LXXVIII.

[Price Two Shillings.]

OBSERVATIONS ON THE INTRODUCTION TO THE ERRATA.

- Page 32, Line 10, *for fever read fevers.*
 45, 2, *after Please add to.*
 60, 22, *for Linclon's read Lincoln's.*
 61, 12, *for he read has.*
 74, *in the note, after page add 82.*
 80, 19, *dele Ware-- there is a house at that town
 under the name of Pest-house, but it has
 been disused as such for a considerable time.*
 89, *last line but one, after again dele ;*
 95, 7, *dele I.*
 100, 12, *for Measels read Measles.*

HON. BARRY T. DIMSDALE,
 THE PHYSICIAN AND CHIEF CLERK OF THE
 IMPERIAL MARINE HOSPITAL, AND MEMBER OF ALL THE ROYAL
 AND F.R.S.

L O N D O N :

Printed by WILLIAM RICHARDSON;
 For W. OWEN, in Fleet-street, and T. CARRAN and T. M.
 DEBY, in St. Paul's Church-yard.

M.DCC.LXXXVIII.

[Price Two Shillings]

TO THE
VICE PRESIDENTS,

TREASURER,

AND

GOVERNORS

OF THE

DISPENSARY

FOR

GENERAL INOCULATION.

GENTLEMEN,

A Pamphlet has been lately addressed to you by Dr. Watkinson, in which are a number of quotations from various authors, in different languages, and an abstruse kind of reasoning well adapted to the purpose of one who aims to captivate the judgment of his readers

by a parade of learning, but by no means suited to convey his meaning in the plainest and most intelligible terms.

In the treatise which I have now the honor to offer to you, this obscurity is endeavoured to be removed, the evidence and arguments that are there produced are examined, and are shewn to be in some instances untrue, and in others diametrically to oppose the cause he espouses.

Previous to this I have offered some observations on the Introduction to the Plan of the Dispensary for General Inoculation, in order to expose the mistaken assertions and delusive reasoning contained therein.

To these are added some recent cases in support of the opinions I had formerly advanced in my Thoughts

on General and Partial Inoculations, which I hope will be deemed conclusive; and you will be pleased to remark, Gentlemen, that Dr. Watkinson has been invited to visit the Patients with me, even during the time of their illness; and that this offer he has declined.

In fact, the proofs that inoculated persons do and have infected others, are too abundant to admit of doubt or denial; and of course by this mode of general Inoculation the infection must be unavoidably spread, though to what extent no one can possibly determine. Under this consideration I do not see how any one can in conscience encourage the Inoculation of the Poor at their own houses, unless he would himself be willing that inoculated persons should have intercourse with such of his own family as have not had the disease.

I can-

I cannot close this address, Gentlemen, without paying a just tribute to those hearts which have countenanced this Institution. But if the perusal of these sheets should convince such as have been actuated by those liberal motives, that the method which has been adopted cannot be defended upon principles of humanity, still the same sentiments will encourage them to embrace every opportunity that may offer, to afford the benefit of Inoculation to the industrious Poor, without subjecting their unwilling or unhealthy neighbours to the danger of the natural disease.

I am, Gentlemen,

Your most obedient Servant!

OBSER-

[2]

OBSERVATIONS
ON THE
INTRODUCTION
TO THE
PLAN.

IN the summer of the year 1775, I received a letter, informing me, that a Society was intended to be established in London for the Inoculation of the Poor at their own houses; and desiring to know whether I would consent to be named as a consulting physician, and one of my sons as physician, to the charity? I returned an answer, expressing my wishes, that the Poor might more generally partake of the benefit of Inoculation; but that the objections to the mode proposed seemed so many and weighty, that I must decline taking any part unless they could be removed.

A

I was

I was afterwards invited to meet some Medical Gentlemen, who were promoters of the plan, at a tavern, where I found two physicians who were strangers to me, and a Gentleman who I have been informed since is Secretary to the Society. At this conference I mentioned some objections that seemed to me the most material; to which no satisfactory answers were given; but they invited me to accept the post of a Vice-president, with the flattering appendage, that they had no doubt of succeeding if I would espouse the cause. I declined this honor; but recommended that, before a dangerous and infectious disease was disseminated among the poor, they should make their intention more publicly known, and ask the opinion of some persons of eminence, whose approbation might add weight to an undertaking which would otherwise appear to be the project of a small number, for their own private emolument: and I then mentioned the College of Physicians, as the legal guardians of medicine in and near London.—No. The College would certainly oppose the proposal.—I could not see why this was to be
appre-

apprehended, unless it appeared in some respects exceptionable. But, as there were many physicians of eminence, would they communicate their plan to some of these, and see whether they would allow of their names to be made use of as supporters of it? No. This was also esteemed needless.

As no other Medical Gentlemen were to be consulted, I advised them to make application to the Legislature, for its consent and countenance. This proposal was likewise rejected.

I was inclined to think, that a scheme which shunned all inquiry from those who were undoubtedly the best judges of its propriety, would be dropped as unlike to succeed; but I found the contrary from a little pamphlet, which was given me by a friend, intitled,

A Plan of the Dispensary for General Inoculation.

On reading this, to which the name of the printer is not annexed, I the less

wondered that the authors were unwilling to submit their scheme to the opinions of the most eminent physicians, since the untruths and false reasonings it contained would certainly have been detected by them : but I found in it a degree of plausibility, well calculated to impose on the judgments of the well-meaning, charitable persons to whom it had been privately handed. To expose and refute these fallacies I thought a duty which I owed to the Public, and accordingly wrote and published my “ Thoughts on general and “ partial Inoculations ;” to which I added a translation of two short Tracts, relating to the same subject, which were published in 1768, when I was in Russia : and in these the opinions I now maintain are so clearly expressed, that I shall be sufficiently exculpated for having taken up the pen for mere opposition sake.

In this publication I contented myself with taking the matter into consideration, without hinting at the occasion, or mentioning any one by name, and should have rested much better satisfied if a difference
of

of opinion might still have been submitted to the public without this introductory relation, which I now think myself obliged to publish, on finding that I am called out by name in a pamphlet, intitled,

An Examination, &c. by John Watkinson, M. D.

Previous to some remarks on that performance, I shall insert the Introduction to the before-mentioned Plan of the Dispensary, which contains the chief arguments in favour of the institution, and add some observations thereon, that the public may be fully enabled to determine, whether the reflections I have made on it are well founded or not.

“INTRODUCTION.”

“As the strength of a nation is, in a
 “great measure, proportionate to the num-
 “ber of its inhabitants, every attempt to
 “increase population by preserving life,
 “has a just claim to the regard both of
 “patriotism and humanity,”

“One

“ One of the chief causes of depopulation among the human species (particularly in large towns) is the Small Pox, which in the course of the last fifty years, as appears by the Bills of Mortality, has swept away one hundred and seven thousand one hundred and fifty of the inhabitants of this metropolis.”

“ To disarm this disease of its malignant powers—to promote the increase of mankind—and diminish the sum of human misery, Inoculation seems providentially to have been introduced.”

“ To shew, by a detail of particular facts, the fitness of Inoculation for answering these valuable ends, would, at this period of time, and in this country especially, where the utility of it has been so long experienced, be altogether superfluous.”

“ It is a truth universally admitted, that not more than one out of five hundred die of the inoculated Small Pox.

“ If

“ If therefore the 107,150 above-men-
 “ tioned had received the disease, to which
 “ they fell victims, by Inoculation, the
 “ number of lives which would have been
 “ thereby preserved, together with the
 “ probable increase from them, must have
 “ made a very considerable addition to the
 “ strength of the state.”

Thus far I have nothing to object, as
 no one can more willingly subscribe
 to an eulogium on Inoculation.

“ It is further to be observed, in favour
 “ of the inoculated Small Pox, that the
 “ danger of spreading the infection by it
 “ is obviously so much less than in the
 “ natural, that it has even been doubted
 “ by some eminent physicians, whether it
 “ ever propagates the contagion, unless
 “ by contact. It is therefore apparent,
 “ that as Inoculation gains ground, the
 “ natural Small Pox will be less frequent,
 “ till at length, like the leprosy of the
 “ Jews and some other diseases, it may
 “ possibly be known only by name.”

That

That the danger of spreading the infection is much less in the inoculated, than natural Small Pox, no one has disputed. But the names of the eminent physicians, who have doubted whether the contagion is ever propagated unless by contact, should have been produced; and, if the authors of the Introduction would have this opinion credited, they should have added their own names as supporters of it.

This they have not done, and I am persuaded never will.—What then shall we think of men, who by insinuations endeavour to propagate an opinion on so very interesting a subject, yet bring no proof to support it, and are themselves ashamed to avow it?

The inference drawn from it beginning with, “It is therefore apparent,” is truly curious, and deserves particular attention, for it promises more benefit to mankind than any of the numerous advertisements we meet with in the news-papers: for in these the nostrum-mongers only pretend to cure all diseases, whereas this assures

us, that the most contagious and fatal distemper Europeans are liable to, shall be so much extirpated, as that it may possibly be known only by name. But as it is probable, that some persons, like myself, may think the proof alledged insufficient, and be desirous of having some difficulties removed, I shall state a few of them.

It is impossible to speak with precision of the number resident in and about London who have not had the Small Pox; the number however must be very considerable. I should be glad to see a plan for the immediate inoculation of these, and also some account given of what is to be done with the new-born infants, who may be fairly reckoned at about sixty in a day*.

It will be proper also to inform us, what number of medical gentlemen and their assistants may be deemed requisite to

* There are about 17,000 Christened in a year; but as neither Dissenters, Roman Catholics, or Jews are included in that number, it may be reasonable to suppose 22,000 may be born within the Bills in the whole, which is at the rate of about 60 on a day.

complete this great undertaking. At present, the society has only appointed one physician, two surgeons, and an apothecary, with two consulting physicians.

The tender feelings of humanity will also awaken our concern for the very great number who may be in a bad state of health, and of course unfit for the operation, and for others, who, disapproving the practice, shall refuse their consent to inoculate their families. Are the former of these to be victims to this injudicious practice? Is force to supply the place of consent with the latter?

Let us however suppose all these difficulties surmounted, and that there was not one person in London who had not passed through the distemper, and even that all infection was extinguished.

To remain in a secure state, not only all England, but even all Europe at least, must be of the same opinion, and take the same measures with us, or all commerce be interdicted.

But

But too much time has been bestowed in exposing this paragraph, which I considered as an insult on the understandings of the persons to whom the plan has been presented.

“But to a very useful, and the most numerous part of the community, the advantages resulting from this happy discovery have hitherto in a great measure been lost.”

I have nothing to object to this paragraph; we only differ in the mode of assisting the inferior part of the community.

“An hospital has indeed been opened for inoculating the poor, but the number of patients admitted into this receptacle, supposing it to have been constantly filled, must have borne so small a proportion to the number of objects for whose benefit it was instituted, that no perceptible diminution of the mortality occasioned by the natural Small

Pox,

But

“ Pox, could have been reasonably expected
 “ from it.”

The hospital in its present state will
 accommodate one hundred patients, which
 is undoubtedly too small to answer the pur-
 pose of affording the benefit of Inoculation
 to the whole of the community; but it may
 be enlarged, and, if the inferior class were
 encouraged to accept of the charity, an
 institution of this kind would answer every
 practicable purpose.

“ To which may be added, that, by
 “ the regulations of this hospital, all per-
 “ sons under seven years of age being ex-
 “ cluded, a very numerous class of ob-
 “ jects remains still unprovided for, and
 “ that too, at a period when the natural
 “ Small Pox generally commits its greatest
 “ ravages.”

This regulation alluded to is certainly
 objectionable. But I have reason to think,
 that the governors intend an alteration,
 and to admit of younger children.

“ But

But if hospitals were established sufficient for the reception of all the poor in London, who might choose to be inoculated, the plan would nevertheless be ineligible."

One great source of the present success in treating the Small Pox is a proper exposure to cold air. To extend this sovereign remedy to infants, a greater number of nurses is necessary than is compatible with the economy of an hospital."

The benefit of cold air to persons under Inoculation is not disputed; but the inference, that a greater number of nurses for infants is necessary than is compatible with the economy of an hospital, I think apparently a mistake from the following plain state of the case.

The inoculating hospital at Pancras stands nearly in the centre of four acres of ground; and has a large garden walled in, and divided so as to separate the men from the

the women, and afford proper places for each to receive the benefit of the air; and as there is always a sufficient number of patients who are well enough to assist infants and others who are unable to walk about, the use, or necessity, for nurses will be very small in this hospital.

On the other hand, the poor who are inoculated in their own confined dwellings, situated in allies, courts, and narrow lanes, will equally require the benefit of this reviving ventilation. They who have other occupations, and frequently several children to engage their time, will hardly be able to give this necessary attendance to their families, and having no gardens, areas, or carriages, are the sick to be carried or led about the streets when ill, to the terror and danger of the neighbourhood?

Many among the lower orders, though depressed with poverty, are no strangers to the tender feelings of humanity. They might with their infant offspring to receive the benefit of inoculation, and

“ yet

“yet not be willing to commit them to the
 “alien care of an hospital nurse. They
 “might desire the same benefit for them-
 “selves, but the necessary separation from
 “their families would for ever exclude
 “them from it.”

The lower orders have certainly the same tender feelings as persons of superior rank; and they should be attended to with every indulgence that is consistent with their real good. But we see, in many instances, they mistake their true interest, and ask for indulgencies which would be hurtful to them. In such cases it becomes a duty to deny their requests, and to endeavour by calm reasoning to remove their prejudices. To a mother who should object to an hospital, and express fears on account of the alien care of a nurse, it might be proper to reply, that she entertained a wrong opinion of the neglect, or want of tenderness, of hospital nurses. For that no one was admitted as a nurse, without particular recommendation from persons of good reputation who have known her to be a sober honest woman. And besides,

besides, that a decent woman, of distinguished good character, under the name of matron, superintended all the nurses, and saw that due care was taken of the patients; not to mention, that those who are not immediately ill, frequently took delight in attending children, or others, who are so.

Besides which, that a physician of great experience visited the patients every day, and an apothecary lived always in the house, who, at a minute's warning, was ready to give assistance to any one who stood in need of it: advantages which cannot be found in any other situation. And one who should object to the separation from her family I would inform, that, in all probability, the whole time of absence would not exceed three weeks; and, if at home, instead of being of use to her family, she would probably require some time of confinement herself. I would also make use of her tender feelings, and remind her, that by staying at home, she would endanger her neighbours, and that it must grieve her much if any one should catch

catch the distemper, and die from her obstinacy.

"The impurity of the air is likewise another objection against the establishment of hospitals. Wherever a number of people are collected together the air will necessarily be impure; and putrid contagion, if once produced, will unavoidably spread itself."

This untrue charge has been already sufficiently confuted in my *Thoughts, &c.* From which I shall therefore only add the following extract *

Let us for a moment drop the offensive name of Hospital, and suppose a large house is provided, in a healthy situation, with convenient and airy apartments, for the reception of any given number of persons capable of being commodiously contained in it; that to be in a good state of health, would be the necessary qualification on the admission of every person, and about three weeks

* the time of the residence, and that the
 * disease he is to undergo is usually so
 * mild as to permit most of the patients
 * to be abroad in the open air almost
 * every day, and of a nature not to com-
 * municate any putrid injury to others,
 * except its own specific poison. If to
 * these circumstances we add, that the
 * patients, in general, will be children,
 * and young persons; that their cloaths
 * and apartments will be clean and their
 * food wholesome, and such as is proper
 * for their condition, surely one may
 * boldly assert, that a family, thus cir-
 * cumstanced, will have the fairest pro-
 * spect of enjoying good health.

The above is a just description of the
 inoculating hospital, and its inhabitants.
 Let it be compared with the state of such
 of the poor as are inoculated at their own
 houses, in which, added to the want of
 necessaries, and proper attendance, there
 will be danger of one of the most unfor-
 tunate accidents which can befall inocu-
 lated patients, I mean that of having other
 putrid diseases at the same time with the
 Small

Small Pox; and, for this assertion, I shall produce an authority that will not be disputed; it is that of an ingenious physician of the General Dispensary for attending the Poor at their own houses. Speaking of fevers, with symptoms of putrescency, he says, "In my practice I have attentively observed, that at least forty-eight out of fifty of these fevers have existed in narrow courts and alleys *."

I have now made observations on every part of the Introduction, (which is distinguished by inverted commas,) and trust that the charge of its containing untruths and false reasoning will appear to be sufficiently proved.

The remaining part of the pamphlet, which contains the regulations, and names of the officers, having nothing to do with the argument, shall remain unnoticed.

* Lettson's Memoirs, p. 33.

REMARKS on an Examination of a
Charge brought against Inocula-
tion. By John Watkinson, M. D.

That diversity of sentiment will occasion perpetual disputation, there is no room to doubt, and perhaps no science affords more subject for contest than medicine. Yet the number of disputes would be much lessened, if a desire for honest information was always the leading motive of Gentlemen who write. But it conveys an unfavourable idea of any cause, when delusive theory and abstract reasoning are used to support it, in opposition to experience and careful observations. Or where the best evidence is rejected, and the testimony of those less acquainted with the subject is produced and enforced. But if to these are added positive assertions without proof or foundation, and which on examination appear to be ill grounded, and if misrepresentation of what has been advanced by an antagonist be discovered in one of the contending parties, it must surely give suspicion, that an anxious concern to support his favourite argument has taken place of the desire to discover the truth,

I would

I would not dwell unnecessarily on what is not interesting, but as the Examination has been addressed to Gentlemen who are not in the medical line, they should be informed, that the point in dispute has been canvassed in a very ample manner by numberless writers many years ago; in-
 fomuch that Monsieur De La Condamine in his letter to Dr. Maty, 1764, apologizes for not giving him a complete list of the publications on the subject, which he says were so numerous, that they ought to be dated by the month, rather than by the year. However he mentions nineteen of the most respectable tracts with his remarks on them, and which he says were published in one year. It would have had the appearance of candour, if Dr. W. had given us this introductory account himself; but that would have diminished his own importance; for by his formal manner of introducing the subject in p. 2, persons unacquainted with the History of Inoculation might suppose that the charge was new and had not been answered, and that Dr. W. stood forth the champion to demolish this strong hold of the anti-inocula-
 tors:

tors: among whom it might be presumed that Baron Dimsdale was one, by his being joined with De Haen and Rast. These Gentlemen, who are truly eminent physicians, had been violent opposers of Inoculation on several different accounts; but why their names were inserted in the title-page with B. D.'s does not appear, since the Doctor has not done them the honour to offer any remarks on what they have advanced, nor has he, through the whole performance, bestowed any reflections on their sentiments.

In the first five pages I find nothing deserving notice, except a remark, that the relative number of deaths has not been attended to in the *Thoughts*, &c. *

* My calculations were, notwithstanding, founded on the proportion of deaths by the Small Pox to the sum of deaths by all other diseases in a former number of years, as observed by Dr. Jurin. And the fact is, that there is no difference between my mode of calculation and that of those writers who he says have avoided this error, than that in mine the number of infants dying under two years of age are deducted; but as they are deducted in both periods, the numbers remain equally relative in the one calculation as in the other, and the result is the same.

In

In the 6th and 7th pages it is shewn, that the air in the country is more healthy than in town, which has always been acknowledged, though this circumstance has been enforced farther than it will bear.

For if the temperate, abstemious life, wholesome food, and healthful occupations of the poor, or the invigorating diversions of the field, various employments abroad, and regular hours of the wealthy in the country, are contrasted with the drunkenness, debauchery, unwholesome food, and unhealthy labours of the inferior class, and the late hours, crowded assemblies, and luxurious tables of persons of condition in town, they will afford much better reasons for the difference of health and longevity, than can be admitted from the impurity of the air alone.

To suppose that the Small Pox, so distinguished for receiving great benefit from fresh air, should not in common with other putrid distempers derive advantage from an air rendered less impure, seems
very

very extraordinary. Yet the Doctor asserts this *, and reasons from it accordingly, without having proved the position, which when enquired into will appear untrue.

That there have been great improvements in the metropolis must be allowed; but I am not aware of any that much affect the purity of the air. Private property has not permitted many alterations in the streets, or lanes, which in general remain in the same state, and I know of no remarkable difference in respect to the cleanliness of the inhabitants. But if the Doctor is inclined to continue the dispute, I can help him to an ingenious opponent, who maintains, that the health of the city has suffered from the air being rendered less pure by the removal of the signs, which, acting as ventilators, fanned the streets, and dispersed the noxious vapours arising from putrid substances. But I shall stand excused from enlarging on this particular, as some writers, on the same side of the question with the Doctor, have maintained that the air of London is more impure, and the inha-

bitants more unhealthy now than formerly; and they have reasoned from this position accordingly. When these Gentlemen have settled this point, it will be time enough to renew the dispute.

Hitherto authors have found great difficulty in explaining the progress and manner by which contagious diseases are propagated; but the Doctor has given us a complete theory*, so convincing both in the manner, and even degree, of communicating the infection, as to admit of a mathematical demonstration.

This part is extremely curious, and as it would suffer by an abridgment, I have inserted the whole, and recommend it as a master-piece of theoretical reasoning.

“ If Inoculation have spread the infection, and augmented the mortality in the degree contended for, the inoculated Small Pox must, necessarily, be very contagious. Whether it be so or not let reason and observation determine.”

* Pages 8 and 9.

“ As the pustules in the artificial disease
 “ are generally very few in number, and
 “ the quantity of fresh air applied is large, it
 “ is rational to suppose, that the effluvium
 “ arising is immediately combined with
 “ the atmosphere as a menstruum, and,
 “ like other vapours in a similar state, de-
 “ prived of its peculiar properties ; but as
 “ the pustules in the natural disease are
 “ more numerous, the effluvium arising
 “ will be much greater, and the combi-
 “ nation above-mentioned not so soon ef-
 “ fected ; and if the patient be confined
 “ to his chamber, which is generally the
 “ case, the air must be quickly saturated
 “ with the effluvium emitted, and conse-
 “ quently that which arises afterward will
 “ float in it unaltered.”

“ In the two latter instances the con-
 “ tagion may readily be conveyed through
 “ the medium of the air ; in the former it
 “ can scarcely be communicated unless by
 “ contact.”

“ The intensity of the contagion is
 “ therefore to be estimated by the number
 “ of

“ of pustules, directly, and the quantity of
 “ air applied inversely.”

“ The exceptions to this general rule

“ I am not solicitous to discover. It is

“ sufficient for my present purpose, that

“ the above reasoning evinces what obser-

“ vation (as I shall afterwards shew) con-

“ firms, that there may be a very confi-

“ derable difference between the natural

“ and inoculated Small Pox, with respect

“ to their contagious power, though not

“ with respect to their essence.”

As I am determined to avoid entering

into the lists with a Theorist, the quota-

tion shall be left without any remarks,

to be considered by those who understand

it, or like to be amused with such mode of

reasoning.

But what I had wrote in p. 25, so far

contradicts the Doctor's opinion, that he

has quoted the passage imperfectly, and en-

deavoured to shew some inconsistency in

it, and omitted the last part which I be-

lieve did not please him. I have carefully

perused the whole, and find neither incon-
 sistency, ambiguity, nor a single sentiment
 that I would wish to alter, or that requires
 explanation. It is as follows: "I know
 " it has been said, and even publicly de-
 " clared, that the Small Pox from Inocu-
 " lation is so mild as scarcely to be in-
 " fectious to others; but if this was true,
 " how comes it that matter taken from
 " inoculated patients conveys the disease
 " per with equal certainty, as if it was
 " taken from the natural Small Pox? Is
 " it not morally certain, that the efflu-
 " via partake of the same infectious qua-
 " lity? No physician of any experience,
 " I am sure, will ever countenance such
 " an opinion. But lest it should prevail
 " and do mischief among the ignorant and
 " credulous, I think it incumbent on me to
 " contradict so dangerous, and unwarrant-
 " able an assertion."
 " In fact it is certain, that the Small
 " Pox is infectious in proportion to the
 " number and malignity of the pustules;
 " and so far there is usually less danger
 " from the artificial disease, than from the
 " natural.

"natural. But let not this presumption
 "make any remit their care, or abate their
 "concern for the community, for I can assert
 "from my own knowledge, that many fatal
 "instances have happened from the disease
 "having been spread by the inoculated."

This opinion, which is the result of extensive experience, I have now inserted un- mutilated, as opposed to Dr. W.'s theory.

It may be now proper to consider the evidence that the Doctor has produced in support of his opinion; previous to which, it will not be amiss to state some particulars that deserve attention.

Inoculation began in England prior to any other part of Europe; and has been encouraged more liberally, and practised more extensively here than in any other state. There are innumerable practitioners in different parts of the kingdom, and many ingenious physicians, and other medical gentlemen in London, who have great experience in this branch of their profession, and it is extremely probable; more persons of late
 years

years have been inoculated here, than in all the rest of Europe.

The present dispute is concerning the bills of mortality, and practice in London. From whose writings then should we expect quotations, whose sentiments or opinions in evidence, or what authorities should be esteemed the best and most respectable? Without doubt from English practitioners, and principally from the most eminent in London. But, to my great surprize, instead of an appeal to persons of reputation here, or to modern experience, a number of quotations are inserted, which have been selected from the foreign authors that have written on Inoculation, and only one of a later date than ten or twelve years. Not a single Englishman graces the inquiry, except Dr. James Sims, who is a consulting physician to the new-instituted Society.

From this general contempt, or fear of appeal to English authors, or the most experienced cotemporary practitioners resident where the dispute originated, and exists,

exists, one might be almost induced to pass sentence on a cause that avoiled the most satisfactory evidence. But though I give the preference to English experience in this particular point, yet many learned and eminent physicians in other countries are intitled to much respect, and I shall therefore remark on the sentiments of such of those as have been produced, separately; but at the same time it may be truly averred, without intentional reflection on any one, that no sort of regard should be paid to any extract, on account of the name or reputation of the author, further than its intrinsic merit may on inquiry claim; for there is scarce an absurdity that the most fertile imagination can invent, which may not be found among the publications of the numerous writers on Inoculation.

The first author quoted is Medicus*, who Dr. W. assures us, is a very eminent and experienced German physician. His opinions are so remarkably singular as to deserve notice.

* Sur les Rechûtes et sur la Contagion de la Petite Verole—Deux Lettres de M. Medicus. Mannheim 1767.

He

He is not an advocate for Inoculation; but, in the Letters referred to, he writes to shew, that the practice is unnecessary, for the following reasons:

He maintains, first, that all diseases which produce florid eruptions are of the same nature, and that it is probable the difference happens only from a small alteration in the atmosphere. 2dly, That the fever preceding the Small Pox and the Measles are so exactly alike, that the most able physicians cannot determine beforehand whether the sick person will have the one or the other. 3dly, That what is called the Chicken Pox is the true Small Pox. 4thly, That it is untrue to say, that one who has had the Small Pox once is no more exposed to it: he thinks, on the contrary, that returns of that disease in the same person are very frequent. 5thly, That the first variolous fever is occasioned by a bad atmosphere; and that the suppuration of the pustules which produces the second fever is an artificial disease, occasioned by a false idea of the disease itself, and that the

the pustules would not suppurate but by the manner of treating them.

6thly, That there is an easy method of curing the first fever of the Small Pox; by which means there would be no variolous pustules; and that the method employed to cure inflammatory fevers, joined with the Cort. Per. will answer the purpose.

These are only a few of the very peculiar opinions of Dr. Medicus, who does not pretend to the least experience in Inoculation; nor mention at what place, at what time, or from what number the persons which he says may be reckoned to have taken the Small Pox from the inoculated, were selected.

The testimony of Miegé, whose experience afforded only one instance of the contagion being propagated by the inoculated, and that by a kiss, is too ridiculous to be given notice to.

The Doctor quotes Dr. Sulzer as asserting, " That he had not seen a single case

“ in which the inoculated Small Pox had,
 “ by contagion, given the disease to an-
 “ other ;” but has not given a translation
 of the last period in the same paragraph,
 which is as follows :

“ *It is true, that I take these precautions*
 “ *during the time of suppuration, not to suffer*
 “ *any who could be infected to come near the*
 “ *sick, and I oblige those who could convey*
 “ *the infection, to change their cloaths, wash*
 “ *and perfume themselves, more especially if*
 “ *the patients have had a considerable number*
 “ *of pustules.*” Does Dr. W. produce this
 Gentleman as one who maintains, that the
 Small Pox from inoculation is scarcely in-
 fectious ? Or is it probable, that he would
 approve of inoculating the poor in narrow
 streets and little courts, in the midst of
 those who were liable to catch the Small
 Pox ?

Dr. Odier says, that he has not yet ob-
 served that the inoculated Small Pox has
 been communicated to any one by conta-
 gion ; but does not inform us of the pre-
 cautions that were taken to prevent the
 disease

disease being spread; on which, however, the whole rests of what he advances depends.

The quotation from Mr. Holwell, of what he observed during his residence in the East Indies in the Company's service, but not in the profession of medicine, is of no importance in the present case.

The last foreign authority produced is Dr. Schwencke, a physician of distinguished reputation in Holland, whose relation of what passed at the Hague in 1767 and 68 is introduced as sufficient to remove every doubt that may remain on this head. — This quotation is certainly more to the purpose than any of the former, but requires an explanation, which might have been procured, as the Professor is now living at the Hague. I shall supply the defect.

I have long been acquainted with Professor Schwencke, and know him to be an experienced, judicious physician, and a very worthy, honest man. I have formerly corre-

sponded with him by letter, and have with my Sons been most hospitably and generously entertained at his own house at the Hague. I wrote to him, to entreat an explanation of the above passage, and now give the correspondence.

To Dr. SCHWENCKE.

(Copy.)

London, April 21st, 1777.

My dear Sir,

LAST year I did myself the honour to present you with a small tract on the subject of general Inoculation, which was wrote expressly to shew, that if persons of condition were not careful, the Small Pox might be taken from their Inoculation, and to expose the ill consequence that might arise from inoculating such poor persons in their own families as would not be able to take proper precautions against infecting their neighbours, which practice two physicians had espoused, and had been endeavouring to raise subscriptions to support.

Dr.

Dr. Watkinson, one of these, has lately published a pamphlet, in which he insinuates, that the inoculated Small Pox is not infectious, and mentions your name in support of the opinion.—I shall give his own words——“ But the following fact, “ attested by Dr. Schwencke, a physician “ of distinguished reputation in Holland, “ is sufficient I think to remove every “ doubt that may remain on this head.” “ About the end of the year 1767, and “ the beginning of the year 68, two hundred people at least were inoculated at “ the Hague, who, without much regard “ to themselves or others, frequented all “ places of public resort; notwithstanding which, no epidemic was produced, “ nor in the whole year did more than “ eight persons die of the Small Pox; and “ of these, three died in the spring, one “ by inoculation, and two by the natural “ disease which they had caught at some “ other place, and carried with them to “ the Hague; the remaining five died towards the end of the year.”

Permit

Permit me to assure you, dear Sir, that I do not doubt the truth of what you assert; but, at the same time, the above wants explanation; for I cannot believe that you intended to give it as your opinion, that the disease might not be caught from the inoculated (as instances out of number may be produced to prove the contrary); nor do I think that you would have it understood, that the whole number frequented places of public resort.

Among the great number of patients it is certainly true, that many will have the disease so favourably as to be able to go about without injury to themselves, or much danger of infecting others, though I esteem it to be indiscreet. *But there will always be a small number who have the distemper more abundantly, and who are neither able to frequent places of public resort on their own account, nor would be suffered to do so from the danger and offence they would give to others: and I am very certain, that of these last none were so indiscreet as to attempt to appear at places of public resort; nor can I suppose, that many*
 who

who had the disorder lightly, would attempt to do it while the pustules were in a state of maturation. I shall be extremely obliged to you, Sir, to inform me truly how you would explain this matter, and how you would have the passage I have quoted understood.

I have given the quotation in English, as published here, and have also wrote in the same language, from thinking I could express myself better ; but shall be much obliged to you for an answer in any language you think proper.

I am, Sir,

Your obliged friend

and very humble servant,

DIMSDALE.

(Copy.)

My dear Sir,

I Beg pardon for delaying so long my answer to your kind letter of the 21st of April, and I now begin it by thanking you for your Tract on the subject of General Inoculation.

If

If the magistrates in every city were more attentive to the health and well-being of the people, they might easily find out means of preventing any bad effect from the general practice of Inoculation; but with us this is not the case, and therefore your Tract has done here more harm than good to the cause in general.

I believe in England, as well as other provinces, there are some who are enemies to Inoculation, from prejudice, obstinacy, and ignorance, while there are others again who are deprived of its benefits by want of opportunities, or through their inability to bear the expence of it.

But this does not prevent us from inoculating every year at the proper season, whether the epidemical Small Pox reigns or not; and it may be affirmed, that no epidemic has ever been occasioned by this practice. The epidemical Small Pox discovers itself among us, almost regularly at certain periods, just as it did before the practice of Inoculation was introduced.

Yours

You seem to imagine that it is my opinion, that inoculated Small Pox is not infectious; but in this you misapprehend me, for I agree with you intirely, that the very best, as well as the very worst, sort of inoculated Small Pox may communicate the infection in every period of the disease.

This is certain; last year, when the epidemic which reigned with violence in our neighbourhood was expected here, I myself inoculated forty-eight persons, and a like number underwent the operation in the hands of other physicians. The inoculated persons walked, or rode out in carriages, every day (except two that were very ill) without any thing like an epidemic ensuing. Nay, during the whole year, only fifteen persons died of the natural Small Pox.

I must however inform you of the precautions which I and others here have made use of on this occasion; if there have been any in the family who have not had the Small Pox, they must leave the house where inoculating is performed. I forbid the inoculated

F

to

to be visited by, or to visit persons who never had the Small Pox, and I am positively against their frequenting balls, comedies, assemblies, or places of public resort.

The extract which Dr. Watkinson gives of my letter to the Professor Sandifort, is authentic: and the fact is true, that notwithstanding the great number that were inoculated by Mr. Hewitt, his Wife, and Dr. Sunderland, in the year 1767, with much less precaution than I use, yet no epidemic was occasioned by their practice. It was not till two years after that the periodical epidemic returned, that is, the year 1769; nay more, the epidemic which began in the year 1766 lasted till the month of August 1767, and in that time had carried off 396 persons, and since the month of August now mentioned, when the disorder reigned most, no epidemical Small Pox broke out among us till the year 1769, though in that interval a considerable number had been inoculated.

From all this you may see plainly, that I look upon the inoculated Small Pox as infec-

infectious, but not sufficient to produce an Epidemic, without other accidental causes seconding it.

It is certain, that in our populous cities, such as Amsterdam, the Small Pox is always found more or less, but does not prevent the periodical return of the epidemic at Amsterdam in a certain number of years, altho Inoculation is neither practised nor permitted in that city.

I see by your last, that more people die at present in London of the natural Small Pox since the practice of Inoculation, than before that practice was introduced. This perhaps may be easily accounted for without any reproach to Inoculation.

The bills of mortality for these fifty years past, since Inoculation first gained ground in England, differ more than one half from the fifty years preceding, and if London reckoned the same number of inhabitants in both periods, then indeed the calculation would be unfavourable to Inoculation; but if it should appear, that the

number of inhabitants is almost doubled in the latter period, that is, since Inoculation has been practised; then it is evident, that the number of deaths is increased, in general, in all sorts of inflammatory and eruptive diseases, and therefore the number of those that die of the natural Small Pox must be increased proportionably. Besides, a variety of circumstances may have contributed in latter times to increase the malignity of the natural Small Pox, such as an increase of high living, the bad influence which multiplied buildings, and a number of families being pack'd in the same house, must have upon the temperature of the air; but of this you can judge better than I can: in the mean time I hope I have answered your question in a satisfactory manner, and that you will be convinced that there is a great difference between infecting, and exciting an epidemic. Inoculation can plainly effectuate the one, but I do not think it adapted to the other.

I remain, Sir,

Your most humble,

obedient servant

M. W. SCHWENCKE.

Hague, June 20th, 1777.

London, June 24th, 1777.

My dear Sir,

PLEASE accept my best thanks for your obliging answer to my letter of April 21st.

The quotation from your letter to Professor Sandifort, carried with it an implication that you esteemed the inoculated Small to be scarcely infectious.

I am happy in knowing your real sentiments more fully on that head. The prudent precautions you observe are certainly right, and if every one would enjoin the same to his patients, no reasonable objection would remain to the practice of Inoculation, and even at present, I believe the injuries to have been greatly exaggerated by some of the opposers. Yet it must be allowed, that one who takes the disease from an inoculated person, has himself the natural Small Pox, with all the circumstances of danger in respect of his own

own life, and of spreading the contagion to others.

Under this consideration it becomes the duty of every one to be extremely careful, that he does not contribute to the mortality of so dreadful a disease. Many ineffectual attempts have been made to account for the alarming number of deaths in London from the Small Pox, what you have ingeniously supposed to be causes will not satisfy. It will surprize you, I believe, to be informed, that notwithstanding London is very much enlarged in its buildings, and has the appearance of a greater number of inhabitants, yet the bills of mortality by no means countenance an increase of people; for the aggregate sum of births and burials is less at present than it was fifty years ago. And nothing can more strongly point out the difficulty of accounting for the number of deaths from Small Pox, than that different Gentlemen should form conjectures diametrically opposite. You, Sir, have supposed, that an increase of buildings, and mode of living, may have had an injurious influence
on

on the temperature of the air, and increase the mortality of the natural Small Pox. It was convenient for Dr. Watkinson's argument to insist, that the air of London has been rendered more pure by some late improvements, and he has reasoned from this assertion accordingly.

I have always been a warm advocate for Inoculation from a conviction of its utility, and have used my best endeavours to serve the cause; but not being able to satisfy myself on this head, I thought it was shewing the truest friendship, and taking the most candid part, to allow that carelessness might spread the disease, and to recommend greater attention in that respect to those who have the care of the inoculated.

The considerations that would arise on Epidemics are too many to be included within the compass of a letter. I shall only say, that I do not agree with you in opinion concerning variolous epidemics, but I dissent with diffidence, knowing that the general

general opinion and great authorities may
be produced in favour of your sentiments.

I am, dear Sir,

Your obliged friend,

and very humble servant,

DIMSDALE.

What becomes now of the paragraph which asserts, that the account given by Dr. Schwencke was sufficient to remove every doubt: it is evident from the letter of my learned and worthy friend, that he is perfectly clear in respect to his opinion of the contagious quality of inoculated Small Pox, and the prudent precautions he uses with his patients is a proof of his attention to the health of the public, and of his disapprobation of the rashness which he observed in the practice of others. He has not indeed directly answered that part of my letter which is in *italics*, but contents himself with saying, that Mr. Hewitt, his Wife, and Dr. Sunderland, in the year 1767, inoculated with much less precaution than he does; but one may venture to affirm, that none, under the description I have
men-

mentioned, either attempted, or would have been suffered to mix with the public.

Upon the whole, the following observations on the testimonies of these foreign writers will, I presume, be allowed just. Medicus, Meige, and Odier, have neither mentioned the number of their patients from whom their experience was collected, nor the precautions that were used to prevent the infection from spreading. All these are of importance, and more especially the last; for if they practised with the same prudent care as Sulzer and Professor Schwencke it will not appear strange, that they observed no instance of the contagion being communicated to others.

I shall only take the liberty of adding a quotation from one foreign physician, who may be truly ranked among the most eminent practitioners, and who is at present in the high employment of inoculating the Royal Family of Madrid, and also deservedly esteemed one of the best writers on the subject of Inoculation. I mean Dr. Gatti. This gentleman, in a chapter on

the prejudices against Inoculation arising from the fear of spreading the contagion, notwithstanding he is writing to excuse the practice from that charge, has the candor to begin with the following concession, and state of the dispute:

“The inoculated Small Pox is contagious, as well as the natural. One inoculated person, if no precaution is taken, may spread the Small Pox through a whole city. In a word, one inoculated person may be the cause of contagion in a community. Let us see if this is a just reason to oppose the establishing of Inoculation *.”

After having asserted, that the Small Pox is not infectious before the eruption, or after the scabs are fallen off, he gives this cautious advice;

“It would be nevertheless absurd and odious to direct them to mix with so-

* *Réflexions sur les préjugés qui s'opposent aux progrès et à la perfection de l'Inoculation. Par M. Gatti, p. 105.*

“ ciety,

“ciety, and go to public places, where
 “they might make timorous persons un-
 “happy, and I have never given such
 “advice*.”

The concluding testimony is that of Dr. W. himself, who, relying on his own theoretical reasoning, and negative accounts of foreign authors, in opposition to the general sense of mankind, and to facts, the truth of which he might have inquired into any day, has, I believe, with a very moderate share of experience of his own, rashly entered on a most dangerous practice, which he relates as follows;

“Some have been inoculated in narrow
 “streets in the midst of those who were
 “obnoxious to the Small Pox, and others
 “in little courts, where, according to the
 “common opinion, the danger of com-
 “municating the disease was still greater.”

“In the latter case the patient has
 “sometimes been kept in a little room

* Page 121.

“ on the ground-floor, the door of which
 “ opened directly into the court, and in
 “ the day-time was seldom shut. Before
 “ this door, and within a few yards of the
 “ person inoculated, a number of children
 “ have continued to play during the
 “ whole course of the disorder, and, as
 “ has been already affirmed, without re-
 “ ceiving the infection *.”

That a man who “ never doubted, that
 “ the contagion of the Small Pox might
 “ be propagated by Inoculation,” and was
 aware what a dreadful disease the natural
 Small Pox is, should dare to practise in
 the above manner is to me astonishing.
 Where were the tender feelings of huma-
 nity at this time? Were they stifled to
 establish a favourite scheme, or suppressed
 by the interested view of raising an in-
 come from the benevolent hearts of ill-
 informed charitable persons?

Whatever were the motives, I will not
 scruple to assert, that it was at the risk
 of the happiness of those whose offspring,

* Examination, page 17.

consorts, or parents, might fall victims to his rashness. From the anguish of these he might expect resentment, to society he would be justly accountable for the loss of a member.

But the Doctor with unwarrantable boldness adds, that “ he can with truth affirm, “ that a single instance has not yet occurred in that charity, in which the contagion has been spread by an inoculated patient *.”

That the Doctor did not hear of a single instance by his inquiries, I willingly believe; but it is impossible to prove, that the contagion did not spread, if many were inoculated under the above-mentioned circumstances, and indeed extremely improbable that it should not have happened. But I will desire no further credit to this assertion than the following considerations (which I know from my own experience) will support. Lint made from a piece of linen rag, that has for some hours lain in contact with variolous pustules near the

time of maturation, will effectually answer the purpose of Inoculation: and even a single thread, moistened with variolous matter, will retain the powers of communicating the disease for many months, perhaps years. I have used a thread of this kind seven months old, that has succeeded to produce the disease. Now, since want of cleanliness is the inseparable companion of poverty, and the poor have little change of raiment, it must follow, that besides the immediate danger of infecting others, the dwellings and cloaths will probably retain the power of conveying the disease for a length of time too indeterminate to guess at: I will therefore congratulate the Doctor on having fortunately escaped the unhappiness that he must have felt, in seeing a whole neighbourhood infected by his indiscretion; but can by no means allow, that the negative assertion which he has so positively made, is proved, or indeed that it is capable of proof. In the "*Thoughts on general and partial Inoculation, &c.*" I had asserted, that innumerable instances might be produced of the Small Pox having been caught from the inoculated, and gave
two

two such within my own knowledge *, to which many more might have been added. One might expect that a Gentleman who was about to write on a disputable point, and who had ransacked a number of foreign authors to find sentiments in support of his opinions, would not have neglected to make some inquiry how a neighbour, who had asserted facts that contradicted his own ideas, could support them. But, instead of this, the Doctor treating me with the same sovereign contempt that he had done other English practitioners, not only neglected inquiring concerning the truth of what I had wrote, but insinuated, that I had been misinformed, and was ignorant—and further, which I confess is sufficiently humiliating, produces the paper of an anonymous writer in a periodical pamphlet, to confute what I had asserted from my own knowledge. I have before given a sample of the Doctor's theoretical reasonings, and now insert the following quotations as specimens of his manner of refuting an antagonist, and of his modesty and good breeding.

* Page 9.

After

After having affirmed to the negative,
 "that a single instance has not occurred
 "in that charity in which the contagion
 "has been spread by an inoculated pa-
 "tient," he proceeds—"In many cases
 "the circumstances have been such, that
 "if the apprehensions of a celebrated Ino-
 "culator were well founded, the dissem-
 "per must inevitably have been commu-
 "nicated; and further; "Baron Dims-
 "dale indeed asserts, that instances of a
 "contrary kind have frequently fallen
 "within his observation. But as the Baron
 "does not seem to have been aware of the
 "great influence of the epidemic consti-
 "tution of the air—it is possible, that
 "what he should have attributed to this
 "cause, he has sometimes imputed to
 "simple contagion. Be that as it may, a
 "writer in the Monthly Ledger†, under
 "the signature of J. S. who had an op-
 "portunity of seeing the practice of Ino-
 "culation in the country where these in-
 "stances happened, speaks of the conse-
 "quences of it in a language very different
 "from that which is held by the Baron.

† Examination, &c. pages 16, 17, 18.
 † Vol. i. page 523.

The following is the most material part of the paper under the signature of J. S.

After saying, that some Inoculators and

their patients were regardless of proper restrictions, he adds—“ Yet few instances

“ of infection from Inoculation were heard

“ of; that there were not twenty times

“ more, was matter of surprize to those

“ acquainted with the contagious nature

“ of the disease, and is to me an irrefra-

“ gable proof of the truth of what I have

“ asserted, that more mischief is likely to

“ be done by one patient in the natural

“ confluent disease, than by fifty inocu-

“ lated patients under the present mode of

“ management.”

I do not find any thing in this to object

to, nor does it contradict what I had as-

serted; but shall take the liberty to add,

that among the few instances of persons in-

fectured from the inoculated, some patients

that I attended died of a confluent disease,

and of course became very infectious, and

by this means the distemper was also fatally

spread in the neighbourhood. Of these

facts

good care of the Gentleman who attended
 facts. I had probably more opportunities of
 being informed than any other person in
 the country, and if Dr. Watkinson should
 even now chuse to satisfy himself by per-
 sonal inquiry, I will recommend him to
 the persons and places where the above ac-
 counts will be confirmed, and also intro-
 duces him to two men, who having been
 inoculated, gave the Small Pox to their
 wives, and both died of it.

One of them returned home too early
 after Inoculation by his own indiscretion,
 the other from the ignorance of a rash ino-
 culator, who had assured him that he
 might safely go home to his family.

I shall now relate some more recent ex-
 perience, the first of which I have received
 while I am writing, from undoubted au-
 thority; it contains the melancholy ac-
 count of the consequences of a precipitate
 Inoculation of the greatest part of the inha-
 bitants in a populous town, within this
 last year. A pretty general Inoculation
 was suddenly agreed on, and within one
 week 11,000 were inoculated. By the

good

good care of the Gentlemen who attended, they escaped with as little loss as could be expected; but many others in the same town, from religious opinions, ill health, or timidity, could not be prevailed on to assent to the scheme; 250 of these soon caught it, and the distemper proved uncommonly fatal to them, for about two in seven died; so that in a few weeks, 70 at least lost their lives from this circumstance. A dreadful catastrophe, and I charitably hope it will be the last instance of the kind!

But I despair of exciting a desire in Dr. W. to receive further information on this head, as the following applications, which were made with a civil intention, failed.

I shall now relate some more recent experience, the first of which I have received. On February 24th last a Gentleman of my acquaintance presented me with the *Examination, &c.*

Inoculation of the greatest part of the inhabitants in a populous town, within this week 11,000 were inoculated. By the

the same family who was ill of the Small Pox, and upon that occasion wrote the following note to Dr. Watkinson:

“ Baron Dimsdale presents his compliments to Dr. W. and, as aocular demonstration will probably convince the most sceptical, recommends him to visit a young man at Mr. Pennruddock’s in Soho-square, who now lies in great danger from a confluent Small Pox, which he caught from three inoculated patients of the Baron’s. The family will admit the Doctor, or if he will call in Lincoln’s-inn-fields to-morrow at nine o’clock, the Baron will accompany him thither. If the Doctor chuses any further satisfaction, he will be informed of three or four more similar cases that have happened in a short time among the small circle of Baron Dimsdale’s private patients.

“ *Lincoln’s-inn-fields, Feb. 25th.* ”

To thank Dr. Watkinson for his answer, which was accompanied with Dr. Watkinson’s pamphlet, was received:

“ Dr

Dr. Watkinson presents his compliments to Baron Dimdale, and as he cannot conceive, that the case of a man labouring under the confluent Small Pox can possibly afford an "ocular demonstration" of the mode in which it was received, nor if it could, that it can in the least affect the point in dispute, begs leave to decline accepting his obliging offer — that the contagion of the Small Pox may be propagated by Inoculation. Dr. W. he never entertained a doubt; but as such instances have not often occurred, he is convinced, that the sum of the good produced by Inoculation is far greater than that of the evil. The ground of this conviction Baron Dimdale will find explained in a little piece just published by Dr. Watkinson, a copy of which he takes this opportunity of sending him.

Fenchurch-street, Feb. 27, 1777.

To thank Dr. Watkinson for his pamphlet, and to clear up my intention in inviting him to see the patient, I replied:

"Baron

“ Baron Dimdale presents his compliments to Dr. Watkinson, and returns thanks for his pamphlet. It was not from an idea, that the bare seeing a person in a confluent Small Pox could have afforded any useful information that the Doctor was invited to visit this patient. But if he had been willing to hear an account of how the man came to be infected, it might have afforded some useful information, and Baron Dimdale would have been ready to have related the circumstances, which would also have been confirmed by Mr. Perudock's family.”

Feb. 27, 1779.

“ I heard nothing further, but soon had a second unhappy opportunity of invading the Doctor, and sent the following note:—”

“ Baron Dimdale's compliments, takes the liberty to acquaint Dr. Watkinson, that a servant of Lady Cornwallis has at this time a confluent Small Pox, which he caught by living in the family with an

Baron Dimisdale presents his compliments to Dr. Watkinson, and returns thanks for his pamphlet. It was not from an idea, that the bare seeing a person in a contagious small pox could have

“ If the Doctor chuses to have any further conviction of the infectious state of inoculated patients, he will be welcome to see both these, and Baron Dimisdale will be ready to inform him of every circumstance that he may chuse to inquire into.”

Lincoln's Inn-fields, March 10, 1777.

Dr. Watkinson's desire of information was not excited; but it was now high time to call in the aid of an Epidemic constitution of the air to account for the mischief, as will appear by the following answer:

“ Dr. Watkinson presents his compliments to Baron Dimisdale, and cannot but express some degree of surprize, that at this time, when an Epidemic constitution of the air prevails, and when persons are daily seized with the Small Pox who have had no apparent communication with the infected, the Baron should

“ imagine

imagine that instances of the kind which he has mentioned, should carry with them any convincing proof of the infectious state of inoculated patients.

But admitting the fact contended for by the Baron to be well established, he must surely perceive that it is very far from being sufficient to decide the question respecting the utility of inoculation, even in its present limited state.

Fenchurch-street, March 10, 1777.

No answer was returned to this.

I was called last June to attend a child of my worthy friend Mr. Cowel, late senior surgeon to St. Thomas's Hospital, who was dangerously ill of the Small Pox. I thought the Doctor would have perhaps paid some attention to this child, as being the son of a Gentleman he was well acquainted with, and had therefore sent the following, where Baron Dinkdale's compliments, &c.

Having lately had an anxious attendance on the child of a particular friend, the

" case

is recommended to Dr. Watkinson's
inquiry. A Son of Mr. C. six years of
age, on a supposition of having had the
" natural Small Pox, continued to go to
" a school where a child was inoculated
" who had only fifteen pustules; in con-
" sequence of this communication Mr.
" Cowel's child caught the disease. If
" Dr. Watkinson wishes to receive any
" particular information Mr. Cowel will
" give him the satisfaction required.

" Hertford, July 6. 1777."

To this last note, which was sent after
the present pamphlet had been advertised,
I received the following formal answer:

Dr. Watkinson's compliments to Baron
D'Armenberg have received his card inform-
ing him, that a Son of Mr. Cowel on
a supposition of having had the natural
Small Pox, continued to go to a school
" where a child was inoculated who had
" only fifteen pustules; in consequence of
" this communication Mr. Cowel's child
" caught the disease. Having lately had
the child of a particular friend
Dr.

Dr. Watkinson can find nothing in the above case repugnant to the principles maintained in the "Examination of a Charge, &c." He entertains however, a proper sense of the Baron's civility, and thanks him for his information.

Fenchurch-street, July 8, 1777.

Here ended the correspondence; and although the Doctor did not think it worth while to inquire into the circumstances of the cases recommended to him, they are of consequence, and ought to be related.

Mr. Penruddock's servant continued in his place during the Inoculation of two children of his master's, and one servant. The children had few pustules, the servant was rather full for Inoculation.

Lady Cornwallis's servant continued in the house during the time that Lord Brome, her Ladyship's Son, had the Small Pox by Inoculation in a most favourable manner; I believe not more than twenty pustules in the

the whole. Both these servants fell ill at the time that might be reasonably expected from the contagion of the inoculated.

Mr. Penruddock's servant died, Lady Cornwallis's recovered, after having been delirious the greatest part of the illness, and in extreme danger. Mr. Covel lives at Colehill, and his house is on an eminence not near any other. His Son was carried to and from the school, which is about four miles distant, in his Father's coach, and he fell ill about the time that might be expected from having caught the disease of the inoculated—he was very full, and had the Small Pox with danger, but recovered.

his place during the inoculation of two. The Doctor, p. 9, positively asserts, that whether the disease be produced naturally or artificially, it is far less contagious than it is generally supposed to be. In p. 21, he, in like manner, insists, that nothing is indeed more manifest than that the natural Small Pox, though in general much more contagious than the artificial, does not multiply itself

"itself, unless favoured by a *miasma* in the
 "situation of the air."—If by *miasma* is
 meant particles arising from decomposed
 bodies, and mixing with the air, which is
 the true sense of the word, I agree with
 him; but from the sequel it seems plain,
 that it was otherwise intended. I shall
 therefore, on the presumption that the Doc-
 tor has mistaken the meaning of this word,
 make some observations on the authorities
 he has produced; and here it is remark-
 able, that he continues the same disregard
 as before to English practitioners, and our
 contemporaries, except Dr. James Sims, from
 whose works he gives the following quo-
 tation: "About the autumnal equinox
 "bilious disorders declined, giving way
 "to the Small Pox, that with unheard of
 "ravages desolated the close of this year
 "and the succeeding spring of 1767.
 "They had appeared above a year before
 "along the eastern coast of the kingdom
 "and proceeded slowly westward, with so
 "even a pace that a curious person might
 "with ease have computed the rate of
 "their progress. In this they were scarce-
 "ly to be interrupted, as appeared by the
 "fol-

following instance. The children of soldiers on their march had brought them from some other places to some towns here, during the preceding summer, and although they were of the malignant kind, the afflicted all dying, and therefore most fit to propagate the infection, yet not one of the inhabitants received them, until in their regular progress they had travelled over the intermediate space. I give more credit to this relation, and am much obliged to the Doctor for inserting it. For, although it agrees with what I have frequently observed in my own experience, I could not just at present recollect a transaction so much to my purpose. The Doctor inserts the quotation as a striking example of the progress of epidemic Small Pox. To my understanding it appears to be a plain and common account of the usual manner by which infection is communicated to a neighbourhood; slowly, with so even a pace that a curious person might have computed the rate of its progress—westward it must advance without doubt,

for

for it came from the *east*, where of course
most of the inhabitants had had it.

This is the true description of the man-
ner in which contagion spreads from one
neighbourhood to another, as the inter-
course of inhabitants communicates the in-
fection. Very different is the just idea of
an Epidemic, which being supposed to arise
from a malignant quality of the air, would
not proceed *slowly*, but infect a great num-
ber at the same time. In short, there seems
no difficulty in understanding this account;
as the regular progress of Small Pox by
contagion, but many difficulties would
arise on the supposition of an Epidemic.
And if the Doctor meant to support it, he
should have added some ingenious theory
in favour of his suggestion: and make it
evident, how an epidemic cloud or vapour,
charged with this malignant air, should
move slowly, and with an even pace, for
a considerable time uninterrupted in its
progress by winds, or any other alteration
in the atmosphere. That the children of
soldiers on a march, of which all, who were
afflicted with the disease, died, should not
be

be able to interrupt this Epidemic, amazes one in the reading; but something seems defective. The Doctor has not mentioned how many there were of these, nor the precautions that were taken to prevent the inhabitants from receiving the distemper, yet there are points of great consequence, for if they were but few that were sick, and great care was taken to prevent the infection from spreading, the wonder will cease. And that one or both was the case is extremely probable. The Doctor's idea, it is true, is very different; for on examining the whole of this curious paragraph (the latter period of which, to claim the more attention, he had printed in *italics*) we shall find his opinion is, that the Epidemic, at a distance, exerted its influence so as to prevent the natural infection taking place, until, in its regular progress, it had travelled over the intermediate space. Here was an opportunity for the Doctor to have given us another theoretical account, how this event was brought about. In the mean time, as that has been omitted, I will ask him seriously a plain question. Does he believe, that the approaching Epidemic

demio had any share in preventing the inhabitants from receiving the infection from the children of the soldiers? Professor Sandfort is quoted, as asserting, that *one child*, in the Orphan-house at the Hague, was seized with the Small Pox, and though communication with the others was not interrupted, none caught the disease. No mention is made whether the child had the disease favourably or not. The Doctor gives this as a remarkable instance of the insufficiency of contagion alone to produce the disease. I must beg leave to ask him, Whether he is of opinion, that the disease could not have been taken from this child, or from the children of the soldiers above-mentioned?

Mr. Petit is also mentioned, as reporting, that altho' the Hotel Dieu is at certain seasons very full of patients in the ward destined to receive such as have the Small Pox, yet it is not observed to remain in the neighbourhood the whole year, nor is it more subject to the disease than the rest of the city. Mons. De la Condamine's relation of the situation of this ward will

in

in some measure account for the assertion of Mr. Petit. He says, that in the Hotel Dieu one does not see that the Small Pox is communicated from one ward to another, by the wise precaution of placing those who are attacked with the disease on the top of the building, which is situated at the extremity of the hospital.

The very respectable opinions of Tissot, Baron Van Swieten, and Sydenham, are quoted in favour of his sentiments.

The first says, "That the Small Pox is indeed a contagious disease; but that it does not propagate itself so much by contagion as by an infection of the air, produced by causes unknown to us."

The opinion of Baron Van Swieten, which he has given in Latin, translated is, "But it is certain, that a morbid contagion requires pre-disposing causes to give birth to a disease. I cannot see that either of these opinions, which are unsupported by facts, are in favour of the Doctor's argument."

* Lettres de Condamine, p. 122.

The last is from Sydenham, and I take this opportunity of returning Dr. W. thanks for reminding me of the opinion of so respectable an author; that, as I take it, makes strongly in favour of my own sentiments. This quotation is also given in Latin, and only a part of the paragraph. I shall not fail giving a translation of the whole in the sequel, in a part where it may be more properly applied.

I have now gone thro' the whole of the evidence produced; for I desire to be excused from paying any regard to what Dr. W. remembers to have heard related by a Professor in his Lectures. I shall in the next place state my own ideas in the plainest manner possible, and also the proofs in support of them.

Antients, admits of no doubt; for the - I do not believe, that any state of air, call'd Epidemic, or by any other name, ever generates Small Pox in our climate, unless aided by contagion. But I do not deny, that certain seasons and constitutions of the air are more favourable than others to imported from Asia at the time of the
 Crusades. spread

spread infection, and propagate the distemper. Neither am I of opinion, that the Small Pox returns epidemically at certain periods, as has been supposed by some eminent writers, as well as by my worthy friend Dr. Schwencke in the letter which I have inserted; but, on the contrary, I maintain, that the disease is truly of the contagious kind, and propagated only by contact; or from the air being infected by effluvia of bodies sick of that disease. The reasons that have influenced me to adopt this opinion shall be submitted to consideration; but I desire to be understood to write on Small Pox only, independent of other disorders that have been deemed Epithemites.

That this disease was unknown to the Antients, admits of no doubt; for the Greek and Roman physicians gave very accurate descriptions of diseases, and descended to very trivial circumstances, yet we find no account of any distemper that can be supposed to be meant for Small Pox. In fact, it is allowed, that the Small Pox was imported from Asia at the time of the

Crusades, and made its first appearance in Europe about the 13th century. Soon after which innumerable writers described the distemper. It was unknown in America till the Europeans carried the Small Pox into the country about 200 years ago, and in some of the Northern parts of Europe it has not made its appearance above 70 or 80 years. There were no traces of the disease in Siberia, till the Russians extended their dominions and carried it thither. Some parts of Tartary are yet free from it. The island of St. Helena remains also to this day uninfected, and the inhabitants, who justly dread the introduction of the disease, make strict inquiry into the state of the crew of every ship that touches there, and use every necessary precaution where there has been room to suspect danger of infection.

From these historical relations it will appear, that the Small Pox has been imported to us in Europe; that it is not a native of our climate; and consequently that the idea of its beginning in any place from

from an epidemic state of the air, unaided by contagion, is a mistake.

But as a different opinion has been espoused by many eminent writers, and facts alledged in support of it, I shall endeavour to state these facts with candour, and then examine how far the reasoning deduced from them will stand the test of inquiry.

It has been insisted, that the Small Pox, far from continuing perpetually in one place, as might be expected if contagion alone was the cause, has usually raged with great violence for a time, and after having destroyed a great number of the inhabitants, abated gradually, from which time there has been a respite for some years in that place; after which the attack has been renewed in the same manner, and the like melancholy scenes of devallation again exhibited.

It has also been alledged, that during the interval, if the natural disease has appeared, or any persons have been inoculated, neither
the

the one nor the other has been sufficient to
excite the Epidemic, till it returned regu-
larly in the usual manner.

These returns have been called Periodi-
cal, and some have gone so far as to fix the
periods of different towns, at a certain num-
ber of years.

This I take to be a true representation
of the facts alledged in favour of Epidem-
ical Small Pox, and I do not contravert the
former part, but the last I believe to be a
mistake. That the Small Pox may have
returned and become general in the same
place, more than once in about the same
number of years, is not improbable, but
that it does so regularly, I deny, and will
venture to appeal to the common experi-
ence of every country to decide this point,
which as well as the other shall be further
illustrated in the sequel. In the great
time it may not be improper to observe,
that it would puzzle the most ingenious
Theorist to account for this intermittent
disorder in the gaily of matter for the other
malignant qualities which have been sup-
posed

posed to exist in it, independent of infection. Let us then quit these visionary ideas, and try whether our having recourse to observation and plain reasoning, will not more satisfactorily account for this matter:

For *Nec Deus interfit, nisi dignus vindice nodus Inciderit.*

is a rule not less just and applicable in medical reasoning, than in the conduct of the drama. And I do not call it a former part, but the last I believe to be a The historical account that has been produced to prove, that the Small Pox is not a native of our climate, may serve also as sufficient proof, that it never begins here from any distemperature of air alone; and the following circumstances are of great weight towards establishing the truth of this opinion. If this disease was the offspring of a particular epidemic air, it certainly could not be restrained by many various precautionary methods; but that the reverse is the case, will appear to anyone who attends to the following remarks in the most considerable towns in England, the

the inhabitants having experienced great injury to their trade, and the loss of many lives by this disease becoming universal, have, at a public expence, provided a house (and in some places more than one) which is called the Pest-house, situated at a convenient distance from the town, and altho' to which all the poor who fall ill are removed as soon as discovered to have the Small Pox. Nurses and medical help are afforded; due care is taken to bury the dead privately, and to give such as recover proper airings until they may be in a state to return home without danger of infecting others. This method, when duly complied with, has prevented the disease from spreading, and preserved the neighbourhood from being generally infected. Hertford, Ware, Hitchin, Bishop-Stortford, Baldock, Stevenage, and Hatfield, which are the considerable market-towns on our side of the county, have each one of these Pest-houses, and the general benefit derived from them is so apparent, that even parochial patronage approves, and allows the expence. To this may be added what the most ignorant people, by mere instinct, have done to pre-
serve

save themselves. — Among the Calmucks, where the Small Pox had been carried by the Russians, the people, after having lost a great number by the disease, thought of the expedient of carrying the sick into the woods, and leaving them alone in huts, with a sufficient quantity of provision. Such as survived were not suffered to join the others, until they had been sufficiently washed, and performed a long quarantine. Those who died were, with the huts they died in, covered with earth by such as had passed through the distemper. By this means the contagion was prevented. The Small Pox is very fatal among these people, and they make use of the same custom to this day.

Dr. Mead relates, that the Small Pox was spread among the Hottentots by their being employed to wash the linen of some Dutch soldiers, and it raged with great and destructive violence; but as soon as these ignorant people were convinced, that the disease was spread by contagion, they drew lines round the infected part of the country, and guarded them so strictly, that if

L

any

any person attempted to fly from the infection, he was immediately shot dead. To these I shall add the quotation from Sydenham which Dr. W. had produced in favour of his argument, but imperfectly, that part which is in *italics* having been prudently omitted, though it contains a most remarkable and well-attested fact.

"* In the mean time I much doubt if the
 " disposition of the air, though it be pesti-
 " lential, is of itself able to produce the
 " plague; but that, being always predo-
 " minant in some place or other, it is
 " conveyed to others by pestilential mat-
 " ter, or the coming of an infected per-
 " son from some place where the plague
 " prevails, and that even there it is not
 " epidemic, unless the constitution of the
 " air favours it. *Otherwise I cannot con-*
 " *ceive how it should so happen that in the*
 " *same climate, at a time the plague rages*
 " *violently in one town, in a neighbouring one*
 " *should totally escape it by strictly forbidding*
 " *all intercourse with the infected place.*
 " *An instance of which we had some few*
 " *years ago, when the plague raged with*
 " *extreme*

"extreme violence in most parts of Italy,
 "and yet the Grand Duke, by his vigilance
 "and prudence, entirely prevented its en-
 "tering the borders of Tuscany."

Now it is also evident, that if the sup-
 posed prevalence of epidemic Small Pox,
 occasioned by distempered air, independent
 of contagion, was well founded, a precau-
 tionary method must be ineffectual; the
 malignant air, admitting of no restraint,
 would exert its influence, and the removal
 of some would be no security to such as re-
 mained at home. This will be further
 confirmed by attending to what frequently
 happens in villages where no care is taken
 to prevent the disease from spreading, also
 in large towns, where some considerable
 persons who will not remove, happen to
 fall sick, or where the disease breaks out in
 too many families to admit a removal of
 all; in either case the distemper becoming
 general the fatal effects are severely felt,
 and where contagion exerts its force uncon-
 trolled until most of the inhabitants have
 had the distemper. In fact, the Small Pox,
 which I believe to be very contagious, may

not unaptly be compared to fire; if one or more houses in a town are burning, provided the people are able to extinguish them, the calamity is averted: but if by accident fires should spread in so many places, that the efforts to stop the progress becomes ineffectual, a great conflagration must ensue.

The Small Pox, at uncertain periods, within my own memory, has raged in Hertford, as in other places, to the loss of many people; yet we have had no such calamity for more than ten years. Suppose one was to ask the reason of this; the answer would be, that it could not happen, because the general Inoculations that have been practised there have left scarce any one to have the disease. Does it not strike one obviously, that whether Inoculation, or the natural distemper, has been so general that most of the inhabitants have undergone it, the case will be exactly the same. The place will be secure from an Epidemic, until a fresh race of new-born children, or a change of inhabitancy has furnished the town with more subjects there for

for the disease, and this I take to be a very
 -sufficient mode of accounting for the re-
 turns that have been mistakenly called
 Periodical; and supposed to arise from an
 unfavourable alteration of the air. And
 this also accounts for and agrees well with
 what I find in Professor Schwenneke's Letter.

The Small Pox had been epidemic at the
 Hague in the year 1766, and lasted till
 August 1767, in which time it carried off
 396 persons, a very great number indeed
 for that place. It was certainly not very
 surprising that an Epidemic was not estab-
 -lished immediately after By Dr. Sunder-
 land and Mr. Hewitt's inoculations, in the
 following winter; for, doubtless, there were
 but few inhabitants that had escaped having
 it the preceding year.

After the arguments advanced I desire it
 may be considered, that though the Small
 Pox should happen to rage epidemically
 twice or thrice in the same place, at about
 the same periods, it would not be sufficient
 to establish a periodical return, and the life
 of man hardly affords time for one person
 to remember many such events; nor is
 there,

there, that I know of, any historical register to support the doctrine. But if it should appear, that recent irregularities have happened to discredit the opinion, I should think it would much weaken, if not destroy, the belief in the periodical returns of epidemical Small Pox. One instance in point I shall mention which will be found in Dr. Schwencke's Letter, where he allows, that last year the epidemic which was expected at the Hague did not return, and that only fifteen persons died of the natural Small Pox. To these shall be added, in Dr. W.'s own words, the very strange account he gives of these visitations, where the uncertainty and irregularity will appear very conspicuous. " In London
 " variolous epidemics do not seem to be
 " governed in their visitation by any *fixed*
 " *period* of time; but in the Hague, where
 " the quantity of contagion is probably
 " always as great in proportion to the
 " number of inhabitants as in London,
 " they have been observed to return every
 " five years. In Leyden, the time of their
 " return appears to be the same. In Gro-
 " ningen, it is every *five or six* years.
 " In

in Switzerland every six; In some parts
of Norway, every seven; in others,
every ten or twelve; and in Bengal every
seven years *.

Some observations on this quotation shall
close the subject.

After having inserted the general Bills of
Mortality for London, it would have been
indiscreet to have fixed on any periodical
return of this disease, because any such as-
sertion might have been totally confuted
by consulting the Bills, and yet this city
above all others should seem the most pro-
per to be produced in point, as I believe
there is not another where a register has
been kept for so many years. Why the
Hague, when only fifteen died last year of
the Small Pox, should probably have as
great a proportion of contagion as London,
where there died 1728, the Doctor has not
explained; but that Leyden and the Hague
should be afflicted with this disease at nearly
the same time, seems probable from the
perpetual communication between these
very considerable places extending the con-

* Examination, &c. p. 44.

tagion.

tagion. In Groningen, where five or six years, and in Norway, where seven, ten, or twelve, are the periods fixed, there is sufficient latitude to give a fair chance for guessing right. But from what authorities the whole extensive Province of Bengal, and the Seven Cantons of Switzerland, are absolutely fixed at six and seven years, the Doctor has not said.

I have before remarked on the Doctor's mathematical learning, and shall, in the following quotation, exhibit a curious specimen of his philosophical reasoning.

“ * It is an axiom in philosophy, that
 “ the same cause in similar circumstances
 “ will always produce the same effect; and
 “ further, that the effect produced, will be
 “ greater or less, as the energy of the cause
 “ is increased or diminished,

“ Let us apply this to the bills of mor-
 “ tality. Let us see whether the number
 “ of deaths by the Small Pox has risen or

* Examination, &c. page 26.

“ fallen

“ fallen in proportion as Inoculation has
 “ been more or less practised. If this
 “ should be the case, there will be some
 “ reason for imputing that variation to
 “ Inoculation: but if, on the contrary,
 “ it should appear, that the one has not
 “ corresponded to the other, it will be
 “ evident that the increase of mortality,
 “ and the practice of Inoculation, are not
 “ connected together as cause and effect.”

What follows is too long to be inserted;
 but in support of this argument the Doc-
 tor proceeds to remarks on the Bills of
 mortality, and the progress of Inoculation,
 and he speaks with as much confidence as
 if he had been himself the sole Inoculator,
 or an actual register had been kept of the
 Inoculated—for instance; from the year
 1742 to 1748 he says Inoculation “ was
 “ more prevalent than it had ever been
 “ before,” and that the “ share which the
 “ Small Pox had in the general mortality,
 “ was reduced from the proportion of one
 “ to twelve to that of one to thirteen—
 “ again; since the year 1755, according to
 “ the same mode of computation, the mor-

M

“ tality

“ fatality of the Small Pox, compared with
 “ the general mortality, has been augmented to the proportion of one to
 “ nine.—But it must be remembered,
 “ that, for a considerable part of this
 “ time, Inoculation, though much practised in the country parts of England,
 “ made no progress in the capital.”

How the Doctor came to be acquainted with this fluctuating progress of Inoculation, he has not informed us. He certainly could know nothing of the matter himself, nor has he produced any authority for the assertion. Yet he, with great ease, wishes his account to be remembered, though in fact it was never known by any one, nor is there, nor I believe can there be, the least authority produced in support of it. The truth is, that no register has been kept of the number inoculated in or near London, nor can the most experienced practitioner form any conjectures that may be relied on. Besides, does not the Doctor know, that the fatality of the Small Pox depends so much on the kind which prevails, that no judicious physician will pretend

tend to offer as a conclusive argument what may have been the case at any one period, although, in general, an estimate from what has happened for a number of years may be esteemed the best mode of judging on the subject?

But in the next paragraph we shall find the point given up, and the fine axiom of philosophy overthrown by the laws of chance. “ That the prevalence of Inoculation, and the increased mortality of the Small Pox, have in no point of time coincided, I do not mean to insinuate. According to the *laws of chance*, this must sometimes have happened. But I contend, that the great irregularity of their coincidence may be considered as a fresh proof that the one is not the cause of the other.”

The whole of pages 26, 27, 28, 29 will deserve being read with attention, when it will be found, that without having adduced a single testimony or argument in support of his assertions, the Doctor, with the most happy confidence, concludes in these words;

M 2

“ Upon,

“ Upon this fact the defence of Inoculation against the charge of increasing the mortality of the Small Pox, might perhaps be safely rested; but I shall add to it another, derived likewise from the bills of mortality, which appears to be conclusive.”

“ For the fact alluded to, I am indebted to my ingenious friend Dr. James Sims, who has very obligingly furnished me with it from the materials which he has collected for the History of Inoculation. I shall state it in his own words.”

This fact, as it is called, consists of seven pages of text and six of tables.

In the first part the charge of Inoculation having contributed to spread the Small Pox is stated from other writers, after which the Doctor complains of unfair practices in the following words:

“ The reason why the above objection has not hitherto been satisfactorily answered, is this; those who have attempted
“ tempted

“ tempted it, have taken the Bills of mor-
 “ tality *as garbled, and unfairly stated by*
 “ *the Objectors to Inoculation*, without giv-
 “ ing themselves the trouble of further ex-
 “ amination.”

“ The circumstance in which the Ob-
 “ jectors have dealt unfairly by us is, that
 “ in taking the medium of deaths for a
 “ certain number of years prior to the
 “ practice of Inoculation, as a fixed stan-
 “ dard, they have not once hinted that
 “ the mortality of the Small Pox had in-
 “ creased in the same proportion before,
 “ as it has done since the introduction
 “ of that art; and by prudently publish-
 “ ing only a part of the Bills, they have
 “ given us no opportunity of making this
 “ discovery. Had they given the whole
 “ of the Bills, is it to be supposed, that
 “ any man in his senses would have joined
 “ with them in blaming Inoculation for
 “ an increase, which commenced ninety
 “ years before Inoculation was heard of in
 “ this country, and continued progressive
 “ through the whole of that period?”

“ I shall

“ I shall not pretend to say what the causes
 “ are which have produced this increase of
 “ mortality; all that I mean to aver is,
 “ that the increase has been constant from
 “ the first Bill, wherein the diseases are
 “ specified, to almost the present day; I
 “ say almost, because for the last twelve
 “ years, when, I believe, every person
 “ will allow that Inoculation has prevailed
 “ perhaps ten times as much as at any
 “ time before, a considerable decrease has
 “ taken place.”

“ That I may, however, treat the rea-
 “ der fairly, I have in the first of the
 “ following tables given every Bill of
 “ mortality that I could procure, and
 “ which I have the utmost * reason to
 “ think are all that are now extant, where-
 “ in the Small Pox is distinctly specified.”

“ Having these before him, if I should
 “ draw any unjust conclusion, he will
 “ easily detect the error.”

* A mode of expression which implies a diligent re-
 search; but the truth is, they are all to be found in a
 Collection of Yearly Bills published in 1759, with many
 of the calculations ready made.

The

The remark, that the deaths by Small Pox have been an increasing article, the Doctor introduces as his own; but he should have acknowledged, that other writers had made the same before, of which he could scarcely be ignorant, as he is well acquainted with the writings of a Gentleman who I have already mentioned, in whose Medical Memoirs the same objection may be found; but without the addition of any unpolite reflection on other writers, which might surely have been spared, and every advantage taken of it in the argument.

The severe reflections of *garbling and unfair dealing* cast on all Objectors without distinction on one hand, and the professions of his own *fair-dealing* on the other, would, I really believe, have influenced me to pass his account as current, had not my attention been roused by a less credulous but shrewd Observer in the Gentleman's Magazine of June last, who has detected the Doctor in a notorious fallacy in one of his most positive and interesting assertions.

“ Your

"Your Correspondent (says this writer)
 refers to the tables of Dr. James Sims,
 "to prove that the mortality of the Small
 "Pox is at this time decreasing;" and Dr.
 Sims says (page 33 of the *Examination*)
 that for the last twelve years, when I
 believe every person will allow that
 Inoculation has prevailed perhaps ten
 times as much as at any time before, a
 considerable decrease has taken place.
 Now it happens rather unfortunately,
 that on casting up the numbers as they
 stand in Dr. Sims's table, page 38 (or
 rather as they should stand, for they are
 not correctly printed) for the last twelve
 "years, *when Inoculation has so much pre-*
 "vailed, the whole number of deaths ap-
 "pears to be 267,608, and those by the
 "Small Pox 27,569, which is 103 in
 "1000; whereas the whole number of
 "deaths for the twelve years immedi-
 "ately preceding is 259,818, and by the
 "Small Pox 26,313, that is only 101
 "in 1000."

Here you see it is evident, that not-
 withstanding Inoculation has prevailed,
 there

there has been an increase of deaths, and of course the argument is inverted, and makes strongly against the Doctor.

This discovery occasioned my examining all the other tables, which I found so curiously constructed as to deserve being reprinted, without which it would be hardly possible to convey a perfect idea of the compiler's management; and I am the more stimulated to this, because Dr. Watkinson had exultingly declared, page 26, that he would meet the anti-inoculists on the ground on which they had hitherto thought themselves secure of victory, which he explains to be the Bills of Mortality.

1	1001	1001	1001	1001	1001	1001	1001	1001	1001
2	1002	1002	1002	1002	1002	1002	1002	1002	1002
3	1003	1003	1003	1003	1003	1003	1003	1003	1003
4	1004	1004	1004	1004	1004	1004	1004	1004	1004
5	1005	1005	1005	1005	1005	1005	1005	1005	1005
6	1006	1006	1006	1006	1006	1006	1006	1006	1006
7	1007	1007	1007	1007	1007	1007	1007	1007	1007
8	1008	1008	1008	1008	1008	1008	1008	1008	1008
9	1009	1009	1009	1009	1009	1009	1009	1009	1009
10	1010	1010	1010	1010	1010	1010	1010	1010	1010
11	1011	1011	1011	1011	1011	1011	1011	1011	1011
12	1012	1012	1012	1012	1012	1012	1012	1012	1012
13	1013	1013	1013	1013	1013	1013	1013	1013	1013
14	1014	1014	1014	1014	1014	1014	1014	1014	1014
15	1015	1015	1015	1015	1015	1015	1015	1015	1015
16	1016	1016	1016	1016	1016	1016	1016	1016	1016
17	1017	1017	1017	1017	1017	1017	1017	1017	1017
18	1018	1018	1018	1018	1018	1018	1018	1018	1018
19	1019	1019	1019	1019	1019	1019	1019	1019	1019
20	1020	1020	1020	1020	1020	1020	1020	1020	1020
21	1021	1021	1021	1021	1021	1021	1021	1021	1021
22	1022	1022	1022	1022	1022	1022	1022	1022	1022
23	1023	1023	1023	1023	1023	1023	1023	1023	1023
24	1024	1024	1024	1024	1024	1024	1024	1024	1024
25	1025	1025	1025	1025	1025	1025	1025	1025	1025
26	1026	1026	1026	1026	1026	1026	1026	1026	1026
27	1027	1027	1027	1027	1027	1027	1027	1027	1027
28	1028	1028	1028	1028	1028	1028	1028	1028	1028
29	1029	1029	1029	1029	1029	1029	1029	1029	1029
30	1030	1030	1030	1030	1030	1030	1030	1030	1030
31	1031	1031	1031	1031	1031	1031	1031	1031	1031
32	1032	1032	1032	1032	1032	1032	1032	1032	1032
33	1033	1033	1033	1033	1033	1033	1033	1033	1033
34	1034	1034	1034	1034	1034	1034	1034	1034	1034
35	1035	1035	1035	1035	1035	1035	1035	1035	1035
36	1036	1036	1036	1036	1036	1036	1036	1036	1036
37	1037	1037	1037	1037	1037	1037	1037	1037	1037
38	1038	1038	1038	1038	1038	1038	1038	1038	1038
39	1039	1039	1039	1039	1039	1039	1039	1039	1039
40	1040	1040	1040	1040	1040	1040	1040	1040	1040
41	1041	1041	1041	1041	1041	1041	1041	1041	1041
42	1042	1042	1042	1042	1042	1042	1042	1042	1042
43	1043	1043	1043	1043	1043	1043	1043	1043	1043
44	1044	1044	1044	1044	1044	1044	1044	1044	1044
45	1045	1045	1045	1045	1045	1045	1045	1045	1045
46	1046	1046	1046	1046	1046	1046	1046	1046	1046
47	1047	1047	1047	1047	1047	1047	1047	1047	1047
48	1048	1048	1048	1048	1048	1048	1048	1048	1048
49	1049	1049	1049	1049	1049	1049	1049	1049	1049
50	1050	1050	1050	1050	1050	1050	1050	1050	1050
51	1051	1051	1051	1051	1051	1051	1051	1051	1051
52	1052	1052	1052	1052	1052	1052	1052	1052	1052
53	1053	1053	1053	1053	1053	1053	1053	1053	1053
54	1054	1054	1054	1054	1054	1054	1054	1054	1054
55	1055	1055	1055	1055	1055	1055	1055	1055	1055
56	1056	1056	1056	1056	1056	1056	1056	1056	1056
57	1057	1057	1057	1057	1057	1057	1057	1057	1057
58	1058	1058	1058	1058	1058	1058	1058	1058	1058
59	1059	1059	1059	1059	1059	1059	1059	1059	1059
60	1060	1060	1060	1060	1060	1060	1060	1060	1060
61	1061	1061	1061	1061	1061	1061	1061	1061	1061
62	1062	1062	1062	1062	1062	1062	1062	1062	1062
63	1063	1063	1063	1063	1063	1063	1063	1063	1063
64	1064	1064	1064	1064	1064	1064	1064	1064	1064
65	1065	1065	1065	1065	1065	1065	1065	1065	1065
66	1066	1066	1066	1066	1066	1066	1066	1066	1066
67	1067	1067	1067	1067	1067	1067	1067	1067	1067
68	1068	1068	1068	1068	1068	1068	1068	1068	1068
69	1069	1069	1069	1069	1069	1069	1069	1069	1069
70	1070	1070	1070	1070	1070	1070	1070	1070	1070
71	1071	1071	1071	1071	1071	1071	1071	1071	1071
72	1072	1072	1072	1072	1072	1072	1072	1072	1072
73	1073	1073	1073	1073	1073	1073	1073	1073	1073
74	1074	1074	1074	1074	1074	1074	1074	1074	1074
75	1075	1075	1075	1075	1075	1075	1075	1075	1075
76	1076	1076	1076	1076	1076	1076	1076	1076	1076
77	1077	1077	1077	1077	1077	1077	1077	1077	1077
78	1078	1078	1078	1078	1078	1078	1078	1078	1078
79	1079	1079	1079	1079	1079	1079	1079	1079	1079
80	1080	1080	1080	1080	1080	1080	1080	1080	1080
81	1081	1081	1081	1081	1081	1081	1081	1081	1081
82	1082	1082	1082	1082	1082	1082	1082	1082	1082
83	1083	1083	1083	1083	1083	1083	1083	1083	1083
84	1084	1084	1084	1084	1084	1084	1084	1084	1084
85	1085	1085	1085	1085	1085	1085	1085	1085	1085
86	1086	1086	1086	1086	1086	1086	1086	1086	1086
87	1087	1087	1087	1087	1087	1087	1087	1087	1087
88	1088	1088	1088	1088	1088	1088	1088	1088	1088
89	1089	1089	1089	1089	1089	1089	1089	1089	1089
90	1090	1090	1090	1090	1090	1090	1090	1090	1090
91	1091	1091	1091	1091	1091	1091	1091	1091	1091
92	1092	1092	1092	1092	1092	1092	1092	1092	1092
93	1093	1093	1093	1093	1093	1093	1093	1093	1093
94	1094	1094	1094	1094	1094	1094	1094	1094	1094
95	1095	1095	1095	1095	1095	1095	1095	1095	1095
96	1096	1096	1096	1096	1096	1096	1096	1096	1096
97	1097	1097	1097	1097	1097	1097	1097	1097	1097
98	1098	1098	1098	1098	1098	1098	1098	1098	1098
99	1099	1099	1099	1099	1099	1099	1099	1099	1099
100	1100	1100	1100	1100	1100	1100	1100	1100	1100

N

TABLE

TABLE I.

Year.	Total of Deaths.	Deaths by Small Pox.	In 1000	Year.	Total of Deaths.	Deaths by Small Pox.	In 1000
1629	8771	72	8	1671	15729	696	44
1630	10554	40	3	72	18239	1116	61
31	8562	58	7	73	17504	853	49
32	9535	531	55	74	21201	2507	118
33	8392	72	8	75	17244	997	58
34	10400	1354	130	76	18732	359	19
35	10561	293	28	77	19067	1678	88
36	23359	127	5	78	20678	1798	87
47	14059	139	10	79	21730	1967	91
48	9894	400	40	1680	21053	689	33
49	10566	1190	112	81	23971	2982	125
1650	8764	184	21	82	20691	1408	68
51	10827	525	48	83	20587	2096	102
52	12569	1279	102	84	23202	1560	7
53	10087	139	13	85	23222	2496	107
54	13247	812	61	1686	22609	1062	47
55	11357	1294	114	1701	20471	1095	53
56	13921	823	59	02	19481	311	16
57	12434	835	67	03	20720	898	43
58	14993	409	27	04	22684	1501	66
59	14756	1523	103	05	22097	1095	50
1660	15118	354	23	06	19847	721	36
61	19771	1246	63	07	21600	1078	50
62	16554	768	46	08	21291	1687	79
63	15356	411	27	09	21800	1024	47
64	18297	1233	67	1710	24620	3138	127
65	97306	655	6	11	19833	915	46
66	12738	38	3	12	21198	1943	92
67	15842	1196	75	13	21057	1614	77
68	17278	1987	115	14	26569	2810	106
69	19432	951	49	15	22232	1057	48
1670	20198	1465	72	16	24436	2427	99

TABLE I. continued.

Year.	Total of Deaths.	Deaths by Small Pox.	In 1000	Year.	Total of Deaths.	Deaths by Small Pox.	In 1000
1717	23446	2211	94	1747	25494	1380	54
18	26523	1884	71	48	23869	1789	75
19	28347	3229	114	49	25516	2625	102
1720	25454	1440	57	1750	23727	1229	51
21	26142	2375	91	51	21028	998	47
22	25750	2167	84	52	20485	3538	172
23	29197	3271	112	53	19276	774	40
24	25952	1227	47	54	21696	2359	103
25	25523	3188	125	55	21917	1988	90
26	29647	1569	53	56	20872	1608	77
27	28418	2379	83	57	21313	3296	154
28	27810	2205	75	58	17576	1273	72
29	29742	2829	95	59	19604	2396	132
1730	26761	1914	71	1760	19830	2187	110
31	25262	2640	104	61	21063	1525	72
32	23358	1197	51	62	26326	2743	104
33	29233	1370	46	63	26143	3582	137
34	26062	2688	103	64	23202	2382	102
35	23538	1594	67	65	23230	2498	107
36	27581	3014	109	66	23911	2334	97
37	27823	2084	74	67	22612	2188	96
38	25825	1590	61	68	23639	3028	128
39	25432	1690	66	69	21847	1968	90
1740	30811	2725	88	1770	22434	1986	88
41	32169	1977	61	71	21780	1660	76
42	27483	1429	52	72	26053	3992	153
43	25200	2029	80	73	21656	1639	48
44	20606	1633	79	74	20884	2479	118
45	21296	1206	56	75	20514	2669	130
46	28157	3236	114	76	19048	1728	90

By the first table a general view of the increase of Small Pox and other disorders may be observed, and any one disposed to amuse or inform himself may make what divisions and calculations he pleases.

But it should be observed, that in the Bills of Mortality from 1629 to 1686, both inclusive, the name of Small Pox is not to be found *singly*, as stated by the Doctor; but instead thereof—Flox and Small Pox—from 1687 to 1700 the title is—Flox, Small Pox, and Measels; (this period of fourteen years is not inserted in the Table); 1701 stands also Flox and Small Pox—from this last date to the present the title is, Small Pox only.

It should also be remarked, that from 1629 to 1680, both inclusive, Plague is to be found in every Bill except one, and in this period there died of this disease only 87157. This destructive disorder, less known to later times, must certainly disturb the proportion of deaths as compared in different periods, and to this must be added the desolating calamities of Civil War and fluctuation

tuation of inhabitancy occasioned thereby during that time; and from these accidents it is evident, that the value of calculations founded on the experience of those years will be greatly lessened. These observations are proper to be taken into accounts, and are sufficient to induce me to think, that it may be most satisfactory to begin with the present century. However, I do not deny, that Small Pox has been an increasing article before the commencement of Inoculation; yet not regularly progressive, as has been asserted, which may be observed by consulting Table I.

Year	Small Pox	Plague
1700	100	100
1701	100	100
1702	100	100
1703	100	100
1704	100	100
1705	100	100
1706	100	100
1707	100	100
1708	100	100
1709	100	100
1710	100	100
1711	100	100
1712	100	100
1713	100	100
1714	100	100
1715	100	100
1716	100	100
1717	100	100
1718	100	100
1719	100	100
1720	100	100
1721	100	100
1722	100	100
1723	100	100
1724	100	100
1725	100	100
1726	100	100
1727	100	100
1728	100	100
1729	100	100
1730	100	100
1731	100	100
1732	100	100
1733	100	100
1734	100	100
1735	100	100
1736	100	100
1737	100	100
1738	100	100
1739	100	100
1740	100	100
1741	100	100
1742	100	100
1743	100	100
1744	100	100
1745	100	100
1746	100	100
1747	100	100
1748	100	100
1749	100	100
1750	100	100
1751	100	100
1752	100	100
1753	100	100
1754	100	100
1755	100	100
1756	100	100
1757	100	100
1758	100	100
1759	100	100
1760	100	100
1761	100	100
1762	100	100
1763	100	100
1764	100	100
1765	100	100
1766	100	100
1767	100	100
1768	100	100
1769	100	100
1770	100	100
1771	100	100
1772	100	100
1773	100	100
1774	100	100
1775	100	100
1776	100	100
1777	100	100
1778	100	100
1779	100	100
1780	100	100
1781	100	100
1782	100	100
1783	100	100
1784	100	100
1785	100	100
1786	100	100
1787	100	100
1788	100	100
1789	100	100
1790	100	100
1791	100	100
1792	100	100
1793	100	100
1794	100	100
1795	100	100
1796	100	100
1797	100	100
1798	100	100
1799	100	100
1800	100	100

TABLE I.

TABLE II.

Containing Periods of 4 Years. Beginning at 1632. By Dr. Watkinson.				Containing Periods of 4 Years. Beginning at 1776. By Baron Dimdale.			
Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.	Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.
1632	9355	175	19				
1636	13200	461	35				
1640	10820	478	44				
1644	11682	688	58				
1648	13176	840	63				
1652	16549	972	58				
1656	35924	584	16				
1660	18187	1399	76				
1664	18166	1293	71				
1668	18930	1208	63				
1672	21861	1761	80				
1676	22405	1452	64				
1704	20839	951	45	1704	20839	951	45
1708	21208	1145	53	1708	21208	1145	53
1712	21862	1755	75	1712	21862	1755	75
1716	23573	1977	83	1716	23573	1977	83
1720	25941	2191	80	1720	25941	2191	80
1724	26760	2260	84	1724	26760	2260	84
1728	27849	2310	83	1728	27849	2310	83
1732	26275	2150	81	1732	26275	2150	81
1736	26603	2166	81	1736	26603	2166	81
1740	27472	2022	73	1740	27472	2022	73
1744	26364	1767	67	1744	26364	1767	67
1748	24704	1901	76	1748	24704	1901	76
1752	22689	2097	92	1752	22689	2097	92
1756	21190	1682	79	1756	21190	1682	79
1760	19580	2338	119	1760	19580	2338	119
1764	24183	2558	105	1764	24183	2558	105
1768	23348	2512	107	1768	23348	2512	107
1772	23028	2401	104	1772	23028	2401	104
1776	20525	1978	96	1776	20525	1978	96

TABLE III.

Containing Periods of 8 Years. Beginning at 1636. By Dr. Watkinson.				Containing Periods of 8 Years. Beginning at 1776. By Baron Dimisdale.			
Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.	Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.
1636	11277	318	28				
1654	11251	583	51				
1662	14862	906	60				
1670	27055	991	36				
1678	18548	1250	67				
1686	22133	1606	72				
1708	21023	1048	49	1704	21622	1201	53
1716	22717	1809	79	1712	21535	1450	67
1724	26350	2225	84	1720	24758	2084	84
1732	27062	2230	82	1728	27304	2285	83
1740	27037	2094	77	1736	26439	2158	81
1748	25534	1834	71	1744	26918	1894	70
1756	21939	1889	86	1752	23696	2000	84
1764	21881	2448	112	1760	20385	2010	98
1772	23188	2456	105	1768	23765	2535	106
1776	20525	1978	96	1776	21777	2190	100

TABLE IV.

Containing Periods of 12 Years. Beginning at 1650. By Dr. Watkinson.				Containing Periods of 12 Years. Beginning at 1776. By Baron Dimsdale.			
Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	Small Pox in 1000	Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	Small Pox in 1000
1650	11125	371	33				
1662	13801	833	60				
1674	24092	1092	45				
1686	21065	1473	69				
1712	21303	1246	58	1704	21701	1388	63
1724	25224	2142	84	1716	22215	1825	73
1736	26009	2208	82	1728	26850	2253	83
1748	26186	2806	72	1740	26784	2152	78
1760	21153	2039	96	1752	24585	1922	78
1772	23519	2490	105	1764	21651	2192	101
1776	20525	1978	96	1776	22300	2297	103

TABLE V.

Containing Periods of 16 Years. Beginning at 1654.				Containing Periods of 16 Years. Beginning at 1776.			
Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	Small Pox in 1000	Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	Small Pox in 1000
1654	11214	450	40				
1670	20958	948	45				
1686	20540	1228	70				
1716	21870	1428	65	1712	21578	1330	61
1732	26706	2227	83	1728	26831	2184	83
1748	26285	1969	74	1744	26679	2026	75
1764	21910	2168	98	1760	22041	2005	99
1776	22300	2297	103	1776	22771	2362	103

[[5005]]

TABLE VI.

Containing Periods of 20 Years. Beginning at 1658. By Dr. Watkinson.				Containing Periods of 20 Years. Beginning at 1776. By Baron Dimsdale.			
Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.	Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.
1658	11637	528	45				
1678	21551	1091	50				
1712	21635	1390	64				
1732	26080	2177	83	1716	17496	1165	66
1752	25566	1990	78	1736	26686	2215	83
1772	22265	2298	103	1756	24484	1894	77
1776	20525	1978	96	1776	22133	2357	106

TABLE VII.

Containing Periods of 24 Years. Beginning at 1662.				Containing Periods of 24 Years. Beginning at 1776.			
Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.	Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.
1662	12463	602	48				
1686	22578	1282	56				
1724	23363	1694	72	1704	20064	1344	67
1748	26544	2052	77	1728	24532	1939	79
1772	22336	2269	101	1752	25684	2017	78
1776	20525	1978	96	1776	21976	2245	102

O

TABLE

[[2406]]

TABLE VIII.

Containing the Medium of the last Years Bills of Mortality, compared with that of the same Number of Years immediately preceding, in a regularly increasing Series.

Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.	Length of the Periods.		
1776	19048	1778	90	One Year each.	0085	0085
1775	20514	2069	130		0085	0085
1776	19781	2108	111	Two Years each.	0085	0085
1774	21270	1759	82		0085	0085
1776	20148	2202	113	Three Years each.	0085	0085
1773	23163	2230	96		0085	0085
1776	20525	1978	96	Four Years each.	0085	0085
1772	23028	2401	104		0085	0085
1776	21621	2281	110	Five Years each.	0085	0085
1771	22262	2166	99		0085	0085
1776	21655	2261	100	Six Years each.	0085	0085
1770	22945	2333	108		0085	0085
1776	21481	2221	104	Seven Years each.	0085	0085
1769	23512	2568	109		0085	0085
1776	21773	2100	100	Eight Years each.	0085	0085
1768	23705	2535	106		0085	0085
1776	21982	2281	109	Nine Years each.	0085	0085
1767	22880	2559	111		0085	0085
1776	22045	2273	103	Ten Years each.	0085	0085
1766	22219	2441	109		0085	0085
1776	22216	2277	102	Eleven Years each.	0085	0085
1765	21916	2334	106		0085	0085

Thus far Dr. Watkinson.

TABLE VIII. continued to 20 Years.

By Baron Dimisdale.

Concluding Year of each Period.	Annual Medium of Total Deaths.	Annual Medium of Deaths by Small Pox.	In 1000.	Length of the Periods.
1776 1764	22300 21651	2297 2192	104 101	Twelve Years each.
1776 1763	22370 21394	2304 2189	104 102	Thirteen Years each.
1776 1762	22639 21316	2395 2052	105 95	Fourteen Years each.
1776 1761	22885 21619	2418 1944	104 89	Fifteen Years each.
1776 1760	22771 22041	2463 2005	103 90	Sixteen Years each.
1776 1759	22598 22272	2352 1973	104 88	Seventeen Years each.
1776 1758	22432 22206	2365 1969	105 82	Eighteen Years each.
1776 1757	22176 22076	2308 1974	104 82	Nineteen Years each.
1776 1756	22133 22484	2357 1894	106 77	Twenty Years each.

The other seven tables are well deserving particular attention, the first five in periods of 4, 8, 12, 16, 20 and 24 years.

The Doctor has chosen to begin with 4 years for obvious reasons; it happens indeed to be a very fortunate period, as the preceding year 1772 had been very fatal, and of course it made room for more favourable succeeding ones. — In the last 4 years we find only 96 in 1000, whereas if he had gone one year back and made a table of 5 years, the proportion would have been 118 to 1000; this would not have answered the Doctor's purpose: but further advantages will also be found to be derived from these selected 4 years in the succeeding tables.

The whole number of years from 1629 to 1776 (omitting the 14 years where Small Pox is confounded with Measles, and also the intermediate years between 1626 and 1647, which are omitted in the Collection of Bills before-mentioned) is 124; this makes 31 periods of 4 years each, and composes the second table.

The

The third table contains periods of 8 years. It cannot be doubted but that a writer who was desirous of exhibiting a true comparative state of what had passed of late years, would have began his periods from the latest date, but that would not have suited the argument, as will be more particularly observed.

8 times 15 make 120; so this fortunate 4 years is still placed in a conspicuous point of view.

The fourth table, consisting of periods of 12 years, answers the same purpose as the former.

10 times 12 is 120; the 4 years remain as before.

The fifth table of 16 years is rather untractable; for here 7 times 16 making 112, the latest period consists of 12 years, and is considerably higher than any other.

But the sixth table of 20 years favours the Doctor's purpose again; 6 times 20 is

120,

120, and the chosen period of 4 years appears again.

The seventh table of 24 years presents the same delusive appearance: 5 times 24 makes 120; and the lucky remainder of four years brings up the rear as before.

Upon reviewing these tables it will appear, that in every one except the fifth the Doctor has artfully availed himself of the last four years, which he has placed at the end of the periods of 8, 12, 20, and 24 years, without making the least acknowledgment, or informing the reader that the last period was incomplete, and by this artifice any one who should cursorily peruse the book might be led into the mistaken supposition, that the Small Pox had declined in the manner these delusive tables represent, and the Doctor has asserted.

The eighth table consists of comparative periods of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 years; but here it must be observed, the Doctor has shifted his ground, and begins with the last Bill of Mortality, for which,

he

he says, there are obvious reasons; but as he has not hinted at what they are, I will venture to suppose they were because the same friendly four years might be again worked to his advantage: but why he stops in this last table at 11 years, instead of continuing it to a greater number, as in the former, may seem extraordinary, more especially as he had before assured us, that *for the last twelve years a considerable decrease had taken place*; and also, that smaller periods partake of the yearly inequality; and the whole dependence of the proof, that the Small Pox does not destroy so many now as formerly, is now placed upon the larger divisions. Yet for this manoeuvre, strange as it appears, an obvious reason may be assigned; for by continuing the comparison the Doctor's own position would have made against him, as will appear by the additions I have made to his 8th table, which will detect the sophistry of his argument.

The reader is requested to inspect all the tables now inserted, where he will find

those in Dr. Watkinson's pamphlet, exactly copied, and tables of the same periods, but beginning with the latest date, placed opposite to them, and he will then judge for himself on whom to fix the charge of *gossiping and unfair dealing*.

I now take my leave of Dr. James Sims, and hope that an attention to the Remarks here made will enable him to improve his *History of Inoculation*, of which it seems the Tables and his observations on them were to have been a part.

After the tables, the causes to which the *increasing mortality of the Small Pox* is to be ascribed are taken into consideration, the principal of which he is inclined to believe will be found in the more frequent concurrence of various Epidemics; yet thinks it an inquiry that cannot be prosecuted with any probability of success at present.

In the next page we find this paragraph. "But whatever may be the cause of the *increase in question*, the only means of countervailing its operation, which ap-

"pears

appears to be adequate and practicable, is
 and a more general inoculation. The efficacy
 of which is plainly evinced by the influence
 it has had on the Bills of Mortal-
 "lity." Now, to any understanding there
 seems an evident contradiction in these pa-
 ragraphs; the increasing mortality of the
 small pox is allowed in the former, and
 yet in the last, inoculation is asserted to
 have had a favourable influence on the Bills
 of Mortality. To the Tables let us appeal
 to see which is true.

About half a page only is afforded to
 recommend the Institution for inoculating
 the Poor of London at their own houses,
 which, he says, has been stigmatized as
 being mischievous and fraught with very
 dangerous consequences to the Commu-
 nity. Instead of complaining in this man-
 ner, I with a little of his time had been
 employed to clear the Institution from these
 aspersions; but as it is left undone, and
 many may be desirous to know what that
 charge was, I shall re-publish part of the
 offensive Chapter in the Appendix; and if

the Doctor should publish a second Examination, I would recommend to him to answer these Objections, and defend the Introduction and the Plan, &c. from the Remarks made on it; and if he could at the same time produce the Opinions of some disinterested eminent Physicians in the city to countenance his arguments, they would tend greatly to the support of the Dispensary.

The Examination now finishes in the following unfriendly manner:

“The clamours of prejudice, envy, and self-interest will, for a time, engage the public ear; but I trust, that the voice of truth and justice, of humanity and sound policy, will at length prevail; that the Practice of Inoculation will become universal, and the mortality of the Small Pox be nearly annihilated.”

Prejudice, envy, and self-interest are bitter words, particularly the last, which indeed has sometimes blinded persons, so as to make them inattentive to the sufferings of others. The Doctor has not, nor will I,

drop

drop the least hint to whom these severe reflections are applicable.

In the preface Dr. W. has maintained, that if from the extension of the practice an increase of the mortality is to be apprehended, he does not see on what principle either of humanity or policy, the further use of it can be justified here; and indeed throughout his whole Treatise there appears an evident design to confound the practice of Inoculation as *cautiously conducted* with the general method proposed by the Institution; as if there was no difference between the humane care of Professor Schwencke and Dr. Sulzer, who use every means to secure their patients from spreading the infection, and the rash practice of those who profess to inoculate all that are recommended, and allow of their mixing with others who have not had the distemper.

I have the honour to agree perfectly with the two learned Physicians above quoted, in the manner of treating patients, and not having the least reason to alter my opinion since the publication of my *Thoughts on*

general and partial Inoculations, I shall insert the conclusion of one of those chapters, in which, after having proved by a number of instances that the distemper had been spread by the inoculated, it concludes,
 “ Having considered the subject as fully
 “ as I am able, it shall be left to the consideration of the public without any comment; only entreating every family that
 “ may inoculate, to be extremely careful,
 “ and use every possible precaution to prevent spreading the infection during the illness, and to be also particularly attentive,
 “ that all furniture and cloaths be well
 “ aired. The persons concerned in inoculating should on their parts take great
 “ care that they do not contribute to the
 “ mischief,

“ If strict attention is paid to these particulars, it may be reasonably hoped,
 “ that the only remaining objection to
 “ the practice of Inoculation in London
 “ among persons of condition, may be
 “ much weakened, if not entirely removed *.”

But one argument that has originated since the publication of the *Examination* still remains to be considered.

In the Doctor's Note in answer to one of mine*, it will be found, that notwithstanding the insinuations he has made and the authorities which he has produced to weaken the opinion, that the inoculated Small Pox was infectious, he says, "that the contagion of the Small Pox may be propagated by Inoculation Dr. W. has never entertained a doubt;" but as such instances have not often occurred, he is "convinced, that the sum of the good produced by Inoculation is far greater than that of the evil."

Had the dispute been concerning the disease of the horned cattle, or any other disorder among brute animals, I would most willingly attend to what he has said on the subject; but in the present instance it shocks my humanity too much. Can a man be so unfeeling as to reason coolly on the sum of the good and evil produced,

where the lives of fellow-mortals, equally precious to the poor as the rich, are the objects?

It will be better to state a case which would most assuredly happen, if it has not already, in the general inoculations as practised in the manner recommended by Dr. Watkinson.

Suppose a life or lives to be lost by the natural Small Pox, caught from some of these poor inoculated patients having intermixed with their neighbours, and that a father or mother in the anguish of their hearts should reproach the author of their misery with the loss. — Would it soothe their grief or allay their resentment, to answer—You must bear this with patience—sixty persons have been inoculated and are recovered; it is possible nine or ten of these would have died, had they caught the natural disease; you have lost only one or two, the sum of the good to the public has been greater than that of the evil; attend to this reasoning and cease complaining.

Having

Having now made the observations and remarks that I thought of consequence on the Plan of the Society for Inoculating the Poor at their own houses, and on Dr. W.'s Examination in defence of it, and having produced several recent instances of the infectious state of inoculated patients, to which many more might be added, they shall be left to the consideration of the Public: but if the Doctor should inflexibly persist in the same opinion, and continue to solicit subscriptions, I hope what I now propose will be deemed a reasonable test of his sincerity.

I presume that Dr. Watkinson has among his friends and acquaintance persons of considerable fashion; let him persuade some of these to permit an intercourse between his inoculated patients and their own families of children, or unhealthy persons. The example of the Rich is generally followed by the Poor most willingly, and the interest of his favourite scheme will be greatly advanced by a publication of instances of this kind.

Having

Until

Until he is able to do this, let him not dare to violate the first and greatest moral Precept—Do not unto others what you would not that they should do unto you—And this Precept should also be well considered by such who are solicited to contribute to the support of the Plan.

enforcement of the Bill of Mortality, not regularly, no one will deny who prescribes the first useful Table; and although this may appear strange, I think it may be accounted for by the following reasons:

1st. The little care which has been taken to prevent the communication between those who are infected and others.

2dly. The gradual progress and subtlety of the various poisons.

As to the first, I well remember, in the earliest part of my life mankind were in general more fearful of small pox than at present. Country people dread coming to town, lest they should catch the distemper, and the residents

Miscellaneous

Miscellaneous Reflections.

THAT the Small Pox has been an increasing distemper from the commencement of the Bills of Mortality, tho' not regularly, no one will deny who inspects the first useful Table; and although this may appear strange, I think it may be accounted for by the following reasons:

1st. The little care which has been taken to prevent the communication between those who are infected and others.

2dly. The gradual progress and known subtilty of the variolous poison.

As to the first, I well remember, that in the earliest part of my life mankind were in general more fearful of Small Pox than at present. Country people dreaded coming to town, lest they should catch the distemper, and the residents in town

Q

were

were cautious of going into the way of infection. For the truth of this assertion I appeal to the memory of those who like myself have long known the city of London. Neither of these is, in general, the case at present; and, notwithstanding what the most strenuous advocates for Inoculation have been able to advance, it has been proved beyond the possibility of a doubt, that some have caught the disease from the inoculated, and such of course have contributed to spread the infection. Wherefore this will in some degree account for the disease having continued to increase, by being in a series of years more universally disseminated, and the following considerations with respect to the second cause assigned will support this argument.

It is to Inoculation we are indebted for the discovery of the subtle nature of the variolous poison; both in respect to the small proportion that is sufficient to infect, and also that the infection may be dried, and in that condensed state preserved for a very great length of time, and yet retain its activity and power of re-producing the disease.

disease. Now it is certainly true, that what may have been practised by artists to preserve the infection for their own use, will also happen on other occasions by accident. For example, those who have the disease badly will infect the cloaths, furniture, or any other substances that are near them. And among the poor in London, whose situation in life neither admits of a change of raiment, or furniture, nor even of the leisure necessary to clean them, the consequence of one having the Small Pox very full, must necessarily be, that the apartment and all that is in it will remain in an infected state; and in some distant period, when a person who has not had the disease shall chance to be in contact with the infected place, or the disposition of the air or some other unknown cause shall loosen and diffuse the seeds of infection, it may become active, and the disease appear again. And this mode of reasoning (added to the infection being spread while the distemper is actually existing) not only accounts for the disease being more general, but also why some fall with it without being

able to discover in what manner it was contracted.

From the last subject it is natural to make a transition to what may be expected in future. That the Small Pox is a disease that has its boundary as to the extent of its mischief is certain, and though it may be impossible to speak with precision on this head, yet some points, duly weighed, will very much assist in forming an opinion.

That the same person can have the distemper but once, affords a proof that the deaths will be in some degree limited by the number of births. Now the number of those who have died annually of Small Pox for the last ten years, amounts to about 2300, and if we suppose one in six to have died, it will appear that about 14000 *per Annum* pass through this disease: and if it is taken into the account that 17,000 is nearly the number that are annually christened, and that of those, the average deaths under two years of age (many of which die of disorders peculiar to early infancy) amount to almost half the number of births, and

and that moreover a very considerable number who have been inoculated in the Hospital at Pancras and in private practice must be deducted, the loss from this distemper will appear incredible without supposing some other cause. It has therefore with great reason been presumed, that a considerable share of the number of deaths from Small Pox is furnished by the supplies which are continually flocking to town from distant parts.

The whole of what I have now advanced being attended to, it will seem extremely probable, that the Small Pox is already arrived at its utmost pitch in respect to the deaths within the Bills of Mortality, and that we may expect an abatement on this head, for the obvious reason, that one source will be very much stopped by the extensive practice of general Inoculations in the country, which have prevailed in a remarkable manner within the last two years in the counties of Bedford, Bucks, Herts, and Cambridge, and others contiguous to London; and these patients have been generally such inferior persons as may be supposed to supply London. To such extent has
 this

this practice been carried, that I imagine the number must amount to many thousands; and for the most part it has been conducted properly, that is to say, every one has been inoculated, or retired from the scene of infection: for this precautionary method may be adopted in the country, though it is totally impracticable in London.

Those who agree with me in these points will I believe allow, that it is a duty incumbent on all to take every precautionary method to prevent the Small Pox being spread by the inoculated or such who may have it naturally. And those who from charitable motives are desirous to favour any poor persons, should extend their benevolence to every one they recommend so effectually, that they may neither want necessaries during the disease, nor be so situated as to infect others; and where this true Charity is shewn I cannot doubt but the Family Physician, Surgeon, or Apothecary will add his attendance without a reward. But the only establishment that can

can effectually answer a general purpose, I am certain, is an Hospital properly encouraged, which it is extremely probable that Legislature if applied to, will endow in an ample manner.

There is one method, though it is totally impracticable, for this purpose, which is to inoculate the small pox by the use of infection: for this purpose, the method may be adopted in the small pox, though it is totally impracticable.

Those who agree with me in these points, I believe allow, that it is a duty in all to take every precaution, to prevent the small pox being spread by the inoculation of such who may have it naturally. And those who from charitable motives are desirous to favour poor persons, should extend their benevolence to every one they recommend effectually, that they may neither want necessities during the disease, nor be so situated as to infect others; and where this true charity is shown I cannot doubt but the Family Physician, Surgeon, or Apothecary will add his attendance without a reward. But the only establishment that

APPENDIX.

APPENDIX.

THE following quotation is taken from *Thoughts on general and partial Inoculations*, p. 36, &c. where speaking of inoculating the Poor at their own Houses, it is said :

“ It may reasonably be presumed, that
 “ the greater number of these will be per-
 “ sons in narrow circumstances, in a
 “ state of poverty, having nothing before
 “ hand to support an illness, and yet the
 “ whole family who have not had the dis-
 “ ease are to be inoculated. Whoever
 “ has visited the abodes of the poor in and
 “ about London, must allow the scene to
 “ be truly miserable; their habitations in
 “ close alleys, courts, and lanes, generally
 “ cold, dirty, and in great want of neat-
 “ ness, even of bedding itself, a requisite
 “ of the greatest use in time of sickness;
 “ there are frequently several families under
 “ one roof; the men, if industrious, em-
 “ ployed

" ployed in daily labour, the women in
 " washing and assisting in different fami-
 " lies, or waiting at markets to carry little
 " burdens as porters, and other unavoid-
 " able employments abroad. None of these
 " can remit their occupations to attend the
 " sick, without exposing their families to
 " the distress which the want of the little
 " money their industry earned would in-
 " fallibly occasion; how or in what man-
 " ner are patients to be nursed and supplied
 " with food and necessaries during the ill-
 " ness, or who is to be relied on, that the
 " medicines and diet enjoined by the per-
 " son who attends, shall be regularly com-
 " plied with?

" Can any one be so inconsiderate as to
 " bring disease into a family before heal-
 " thy, without having first a reasonable
 " expectation, that what their situation
 " may require will certainly be provided?
 " No one acquainted with the general tem-
 " per of parish officers, will much depend
 " on their assistance; on the contrary,
 " they will most probably oppose the plan
 " to the utmost of their endeavours, from

R

" an

an apprehension that the disease will be spread by these means, and occasion a consequent increase of expence to the parish.

“ But admitting these objections could be removed, one very important point, that more immediately respects the security of the patients and the public, should be attended to.

“ One great cause of the success, that attends the present practice, is supposed to be the exposure of patients to fresh air; and the more alarming the symptoms, the greater is the necessity of administering this salutary relief. The poor who are inoculated in their own confined dwellings, with perhaps many in family, will assuredly require this revivifying ventilation. They have no gardens, areas, or the convenience of carriages; are they to be carried or led about the streets when ill, to the terror and danger of the neighbourhood?

Having

“ Having suggested a few of the difficulties that must ensue to the patients, it will not be improper to consider, how far the community will be likely to be affected by the practice.

“ To conduct the business of the Inoculation, some place or places centrally situated must be provided, at which the patients should assemble in order to be inoculated, and to which the several families of the sick must have recourse for the necessary medicines and directions during the distemper. To find one or more such places in the whole city, where the neighbourhood would suffer an office of this kind to be established, at which a great number of the poor must be assembled at noon-day, to receive an infectious and dangerous disease, is hardly possible to conceive; and if we consider that these persons must intermix with others, who are attending to procure the necessary medicines for their diseased families, and who have been obliged to make their way on foot through the public streets, from every

R 2

“ quarter

'in quarters of the metropolis, in their in-
 'fected apparel, the public danger becomes
 'so great and inevitable. as mild as per is so mild as
 'go abroad; the other, where the num-
 'But should the poor who are proper to
 'undergo the operation be inoculated, and
 'means for their subsistence be provided,
 'questions will arise respecting the state of
 'their neighbours, some of whom will be
 'precluded from the same advantage, by
 'being affected with other diseases, and
 'others, who have strong prejudices against
 'it, will be totally averse to the practice.
 'Is it reasonable to bring the Small Pox to
 'the doors of persons thus circumstanced,
 'against their consent? Our shudders at
 'the thought of such an insult to huma-
 'nity! But it is not only the immediate
 'neighbours that would be endangered;
 'to be well informed how far the mis-
 'chief might be extended, one must take
 'into account the situation and conduct
 'of the patients, and it may safely be
 'asserted from experience, that the fol-
 'lowing would be found to be a true re-
 'presentation of the mis-

11 "

" The

The inoculated may be divided into
 two classes. One, in whom the distem-
 per is so mild as to admit the parties to
 go abroad; the other, where the num-
 ber of pustules is so considerable as to
 confine the patients at home; by far the
 greater number will be of the first sort;
 and whatever orders may be given to the
 contrary will be impossible to restrain
 them from taking undue liberties; the
 children who are of an age for it will be
 found in the streets with their former
 playfellows, and the men and women
 who are able, will be endeavouring to
 get into their former employments to
 earn a little money, without regarding
 the injury they may occasion to others.
 The few who may be confined with a
 less favourable disease, will infect the
 household and their family, and the infection
 will be spread from the gossiping dispo-
 sition of the poor, who are generally
 troublesome visitors to their sick neigh-
 bours; and after all is over, the first sal-
 lying forth in their infected cloaths is
 certain to add to the mischief.

The

It

It is unnecessary to dwell any longer
 on the consequences of such a conduct to
 the residents in such alleys; but there are
 others who claim our regard.

Country people who are obliged to
 come to town to transact their business,
 and others who bring their families to
 visit relations, or to entertain them with
 the pleasures of the town, are generally
 under dreadful apprehensions of the Small
 Pox; how would their fears and danger
 be increased, if the poor were continually
 under inoculation?

Another thoughtless, but most useful
 race of men, are well entitled to our best
 endeavours for the preservation of their
 healths and lives: I mean, sailors and
 seafaring men, of our own and other
 countries; it is well known that our
 shores, on both sides of the river, are
 continually crouded with these, during
 their stay in this country.

Many of them have not had the Small
 Pox, and their mode of living is the re-

verse

“ verse of due preparation; if Inoculation
 “ should be practised in the houses of the
 “ poor, it cannot be doubted that many
 “ of these would catch this distemper.

“ Is it possible to reflect without horror
 “ on the situation of such of those unhappy
 “ fellows, who should fall ill of the Small
 “ Pox in the miserable lodgings they usu-
 “ ally inhabit, perhaps without a friend to
 “ take the least care of them? or of the
 “ still more calamitous state of others, who
 “ being infected on shore should fall sick
 “ at sea, where neither medicine nor pro-
 “ per attendance can be had, and carry
 “ likewise with them in their unwashed
 “ cloaths, the fatal distemper into distant
 “ climates!



“ and their mode of living is the re-
 “ verse of the former.”

P O S T S C R I P T

BY unavoidable accidents the publication of this treatise has been delayed at least a month longer than was expected. During that period the Bills of Mortality for 1777 have been printed, and from them it appears, that the total of burials is 23,334, and the number of deaths by the Small Pox is 2,567, which is 110 in 1000. This circumstance without any comment further refutes the boasted inference from the tables, "that Small Pox" does not destroy so many now as formerly," and confirms what I have advanced on the subject. This alarming increase Dr. Watkinson and Dr. Sims will probably account for by a resource to their old System of Epidemic, which is to extricate them from every difficulty; but I believe, that most who read this treatise will be of opinion, that this species of Epidemic has been very much occasioned by the careless intercourse of inoculated patients with others, and therefore the Society must be charged with a large share of the mischief.

F I N I S.